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ABSTRACT

The Wilderness Experience is an innovative, experiential program under New Mexico's Statewide Forensic Treatment System for mentally disordered first offenders and those soon to be released on parole or probation. Developed from the concepts of Outward Bound, criminal offenders undergo an intensive 17-21 day confrontation with their physical, emotional, and social boundaries through such high stress activities as backpacking, cooperative group living, rock climbing, river rafting, rappeling, and wilderness survival solos. Preliminary data gathered on 30 clients indicate statistically significant positive treatment effects; clients return less depressed, paranoid, tense, worried, and ego-centric. The program has treated 103 adults (average age - 22.3 years, composed of 30% Anglo, 55% Spanish, 10% Black, and 5% American Indian) and 109 juveniles (average age - 16.1 years, composed of 38% Anglo, 53% Spanish, 5% Black, 2% American Indian, and 2% other). For adults, the recidivist rate is 8% based on reconviction and a return to the Penitentiary within 9 months. The rate for juveniles is 10% recidivism at 3 months and 17% at 9 months. Course failure has been a 100% predictor of recidivism for both juveniles and adults. Cost per day, per client in the wilderness is $47.99, but there are hidden cost benefits due to diversionary and early release/resocialization referrals. The program offers a therapeutically effective alternative to the costs of long-term incarceration. (NEC)

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HEALTH AND ENVIRONMENT DEPARTMENT

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FORENSIC SYSTEM
Behavioral Health Services Division
Health and Environment Department
State of New Mexico

WILDERNESS EXPERIENCE PROGRAM
Final Evaluation Report

Dr. Richard Owen Kimball
January 1, 1979

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ABSTRACT

Sections:

I. INTRODUCTION

II. REVIEW OF THE LITERATURE

A. Recently the Vera Institute of Justice in New York City in a report to the Ford Foundation cited wilderness adventure programs as an exemplary modality for treatment of violent delinquents.

B. Research indicates that clients who have participated in similar programs have demonstrated positive attitudes toward peers and authority, have an improved self-concept, and a reduced recidivism rate.

C. The New Mexico Wilderness Experience Program has garnered a great deal of State and National attention for its work with adult and juvenile offenders (Parade Magazine, LEAA Newsletter, Albuquerque Journal, AEE Journal, and several scholarly presentations).

III. COMMUNICATION COURSES (New Mexico's Wilderness Experience Program)

A. Courses are providing state personnel and referring agencies with first hand, experiential, insight into wilderness therapy.

B. A survey/questionnaire administered to participants indicated high enthusiasm and support for the concept of wilderness therapy as an alternative and/or complement to the Criminal Justice System.

IV. RESEARCH OF TREATMENT EFFECT (New Mexico's Wilderness Experience Program)

A. Directional T-tests show statistically significant increases on several dimensions of the juvenile referral's self-concept following wilderness therapy.

B. Research with adult referrals indicate statistically significant positive treatment effects. Clients return less depressed, paranoid, tense, worried and ego-centric. The wilderness course is effective in providing an excellent framework for further therapy and/or resocialization.

C. High stress courses are more effective in producing psychological change than are low stress courses.

V. REFERRALS

A. Role of the Wilderness Experience Program is consistent with the New Mexico Corrections Master Plan's call for diversionary and re-integration programs for offenders.

B. Juvenile Division referrals are 40% parole or probation; 60% diversionary (pre-prosecution or pre-sentencing).

C. Adult Division referrals are 35% parole or probation; 57% diversionary (pre-prosecution or pre-sentencing) and 8% re-integration.

D. Juveniles: Average age 16.1; Ethnicity: 38% Anglo, 5% Black, 53% Spanish, 2% American Indian, 2% Other; 82% have committed felonies; 65% are not living at home with both parents; 68% had less than 2 previous offenses.

E. Adults: Average age: 22.3 years; Ethnicity: 30% Anglo, 55% Spanish, 10% Black, 5% American Indian.

VI. RECIDIVISM

A. Rate varies depending on definition utilized and time frame looked at. The rate for juveniles is 10% recidivism at 3 months, and 17% recidivism at 9 months when recidivism is defined as reconviction.

B. For adults, the recidivist rate is 8% based on reconviction and a return to the Penitentiary within 9 months.

C. Course failure has been a 100% predictor of recidivism for both juvenile (n=6) and adult (n=4) clients.

VII. COST EFFECTIVENESS

A. Program has treated 103 adult clients with 1,425 client days; 109 juvenile clients with 1,470 client days and over 300 state personnel via communication courses for 900 client days.

B. The Wilderness courses were 80% full during the first fiscal quarter of 1978-1979 based upon maximum delivery of services. There has been a continual three-year increase in referrals. Full enrollment is projected for 1979 based upon this trend and new referral sources.

C. As a result of increased program delivery, client per diem rates (cost per day, per client in the Wilderness) declined to $47.99.

D. Comparative costs show that the Wilderness Experience per diem rate is comparable to other residential treatment programs.

E. There are hidden cost benefits due to diversionary and early release/resocialization referrals. Specifically, the Wilderness Experience Program offers a therapeutically effective alternative to the costs of long-term incarceration.

During the term of his contract Dr. Kimball, when not maintaining a consultant role at the Wilderness Experience office, functioned as a participant observer on two adult courses, travelled extensively around the state visiting referral sources, made two presentations to state personnel, and implemented and conducted psychological testing before and after each wilderness course. Psychological data was analyzed at the University of Colorado Computing Center and critiqued by the Lab of Education Research, University of Colorado.

The Evaluation

As evaluators, we lean toward the quantitative when we are confident that we can anticipate the decisions and questions that need answers. We lean toward the narrative when our sense of what matters is tentative and evolving (Glass, Evaluation Studies 1976, p.400).

Traditionally evaluators of Outward Bound adaptive programs have looked upon "hard" quantitative analysis rather xenophobically. Many Outward Bound proponents maintain that the psychological effects are unique to each participant and cannot be anticipated. They compare the impact of the wilderness experience to electricity, "we know it works but we are not sure why". Spurning psychometric tests many researchers have chosen, instead, "soft" forms of evaluation such as narrative accounts and case studies.

The methodology for this study includes a combination of evaluation approaches. These strategies range from classic experimental research to narrative student accounts. The evaluation attempted to examine the Wilderness Experience Program from a variety of angles. Each angle offers

a different perspective of the Gestalt. The quantitative information is specific, reliable and disciplined. Unfortunately, to many readers, the recitation of standard deviations, orthogonal contrasts and alpha levels is dull stuff. The conceptual analysis and narrative accounts, though more untrustworthy than statistical data, are evocative. Although these narrative aspects of the evaluation are subjective, they are directed to discovery rather than confirmation of hypotheses.

Reading the narrative account of a participant's 17 day experiences in the San Juan Mountains adds meaning to the evaluation as no statistical analysis can. The positive results of the psychometric testing suggest that psychological changes are taking place. Cost analysis indicates that when the program fills its courses it is no more expensive than other residential treatment programs. Each of the aforementioned "angles" and those which follow offer pictures of the Wilderness Experience Program. The study is best seen as a mosaic of component parts. Although meaningful on their own, the components are best understood in relation to each other. The components include:

I Introduction

II Review of the Literature

III Effectiveness of Communication Courses

IV Research of Therapeutic Effect

- A. Juvenile Program
- B. Adult Program

V Referrals to the Programs

VI Recidivism

VII Cost Effectiveness

VIII Client Report

IX Conceptual Underpinnings of Wilderness Therapy

X Recommendations

II REVIEW OF LITERATURE

History of Wilderness Adventure Training with Delinquent Populations

The first Outward Bound School in the United States began in Colorado in 1962. From its inception the school has made the inclusion of delinquent youth a high priority. Starting with C-1 in 1962, Bill Chapman, the school's first director, managed to include referrals from the Denver Juvenile Courts.

Although this involvement was not without its problems, it was deemed promising. In 1964, the Massachusetts Division of Youth Services began sending delinquent youth to a number of Outward Bound Schools. The intent was to determine program effectiveness and the feasibility for future adaptation in Massachusetts.

According to the major report by Professors Francis Kelly and Daniel Baer, "Outward Bound is not the panacea for delinquency in our adolescent population. However, the results of the pilot studies strongly suggest that it was an effective modality for some". The Kelly and Baer study and its subsequent follow-up study were landmarks for introducing the concept of Outward Bound as a serious alternative to juvenile corrections around the country.

The first Outward Bound adaptive program working with adult criminal offenders was the Manpower Challenge Program sponsored by the Adolph Coors Company from 1969 to 1971. This program used an Outward Bound course as an integral component in training the hard core unemployed to

become employable. Many of these young men were paroled ex-convicts. Many successful parolees graduated from Outward Bound into jobs with the Coors Company. Another unique concept within the Manpower Challenge Program was the intentional mixture on wilderness courses of top management personnel with blue collar personnel and criminal offenders. Today there are several Manpower graduates in top management positions -- a legacy to a pioneering idea.

Over the years the number of adaptive programs has proliferated until today there are over fifty programs working with criminal offenders. Almost all of these programs work with juveniles with the exception of four states, New York, Missouri, Colorado and New Mexico, which have adult programs. Nationwide the number of offenders experiencing wilderness adventure programs is probably 1500 per year for juveniles and only 200 per year for adults.

Interest in Outward Bound as a viable treatment modality is still growing. In 1976, the Vera Institute of Justice in New York City published a report entitled Violent Delinquents prepared for the Ford Foundation. The Vera study is likely to prove another landmark report in stimulating the expansion of interest in wilderness adventure training as an alternative within corrections. The Vera study to the Ford Foundation presents Outward Bound type programs as an exemplary modality for the treatment of violent delinquents. Only two other programs of those surveyed around the country were considered exemplary. In June, 1978 Correction Magazine did a feature article on the success and concommitant proliferation of adventure based programs for delinquents. The Associa-

tion of Experiential Education Journal in the Spring of 1978 published an article by Gerald L. Golins entitled "How Delinquents Succeed Through Adventure Based Education". This provocative article can be found in Appendix A of this report.

To summarize, from the inchoate stages in 1962, adventure programming has proven to be an effective treatment for delinquent populations. This phenomenon is suggested by the copious number of extant programs. That this trend will continue, even in the face of the Howard Jarvis revolt and government cut backs, is suggested by the enthusiastic endorsement given by several national publications and national foundations.

Review of Scholarly Research

A review of recent literature indicates that there are presently over fifty adventure stress-challenge programs in the United States servicing delinquent youth and adult offenders. The search for alternatives within the criminal justice system, combined with the demand for accountability, have precipitated numerous research efforts. Research and evaluation designs have included a variety of data collection methods, including attitudinal testing, participant observation, follow-up monitoring and recidivism studies. The results have been overwhelmingly favorable. At the same time, most of the studies are flawed by serious questions of methodology and statistical analysis. To wit, evaluators have used poor research designs and have over-generalized from their results. The studies which follow were considered to be credible by this author.

The landmark study of adventure training as an alternative to incarceration was conducted by Professors Francis Kelly and Daniel Baer.

Their findings were published in "Physical Challenge as a Treatment for Delinquency" in Crime and Delinquency, October, 1971. In this study the authors found that the recidivism rates for the 42 boys who completed the program was 20% compared to figures 42% for a control group and 50-60% for the Nation.

The researchers also made five important conclusions:

1. Delinquents who had never been institutionalized were more likely to succeed than those who had been at institutions.

2. The program was not successful for delinquents who were labelled as stubborn. (Clinically, this is probably correlated with asocial types or character disordered personalities).

3. The program was more successful for delinquents who stole material goods or cars. Therefore, delinquents who were responding to an "adolescent crisis" rather than to a character defect appeared to profit most.

4. The program provides an opportunity to employ physical challenge as a masculine rite of passage.

5. High excitement and a sense of danger are important programmatic variables. Physical activity, by itself, is not effective.

Freeman, Spilka and Mason (1969), carried out an empirical evaluation of adjudicated delinquents who participated in a cooperative program with the Colorado Outward Bound School. The evaluator's main hypothesis, that the "consequences of aggression would come to be negatively viewed", was accepted.

Thomas R. Collingwood (1976) in a report to the Arkansas Rehabilitation Service found that an Outward Bound type program for 1st offenders resulted in improved physical fitness (significant on five different factors) and a significant frequency of positive behavior.

An Evalutation of the Connecticut Wilderness Program (Cytrynbaum and Ken, June, 1975) showed that graduates of the program when compared

to a control group differed in three ways six months after the course. The date indicated that graduates were less likely to be in trouble with the law, were less involved with drugs and alcohol and they were less systems dependent. (Systems dependent was defined as reliance on public assistance, mental health resources, legal welfare, drug treatment services, etc).

Kelly's (1974) five year follow-up of those first subjects in the 1966 study (Kelly and Baer) reveals that the difference in recidivism rates is not statistically significant after five years. But the direction certainly speaks in favor of the Outward Bound program (38% vs.53%). The greatest increase in recidivism occurred at the end of the second year of parole for the Outward Bound group, rather than in the first six months, suggesting that the Wilderness Program had effects which helped many to sustain themselves in the community for a longer period of time. This finding also indicates the need for a community based form of continued treatment after the juvenile returns to the community. New Mexico's Wilderness Experience Program, because it is a part of the statewide Forensic Treatment System, has this continuity built into it. Probation officers, psychologists, and social workers in the local communities are quite likely to have been on short Wilderness Experience courses themselves.

A comprehensive report on the research within Outward Bound and adaptive programs was written by Mr. Arnold Shore of the Russell Sage Foundation in New York City. In that report the author says,

> the results in studies on the effects of Outward Bound on recidivism seem consistent. That is, Outward Bound has been shown to reduce the rate of recidivism among youthful offenders. Even after making allowances

for methodological flaws, Outward Bound seems worthy of the label "strong stimulus" toward recidivism reduction

Popular and Scholarly Articles on New Mexico's Wilderness Experience Program

The New Mexico Wilderness Experience Program has garnered a great deal of state and national attention for its work with adult offenders. Parade Magazine, a national Sunday newspaper supplement, did a feature article. The LEAA (Law Enforcement Assistance Administration) newsletter carried a cover story replete with photographs of two wilderness participants rock climbing and rappelling. The Albuquerque Journal and Saratoga Magazine plan upcoming feature articles.

In scholarly circles the research generated by the Wilderness Experience Program evaluation has been submitted to the Association of Experiential Education Journal and the American Psychological Association. In 1977 Dr. Susan Cave and Dr. Elliott Rapoport, psychologists at the New Mexico State Forensic Hospital, presented a paper entitled "The Wilderness Experience: Therapy and Rite of Passage" at Rusk State Hospital in Texas to a national audience of forensic psychologists. The paper addressed the success of the Wilderness Program as therapy for court ordered treatment cases, in particular, chronic schizophrenics. This paper was received enthusiastically in a field where optimism is hard to find.

In toto, the Wilderness Experience Program offers an intriguing alternative to incarceration that captures scholarly and public interest.

III COMMUNICATION COURSES

Purpose of Communication Courses

One of the original goals of the Wilderness Experience Program, as expressed in the grant request submitted to the LEAA (Law Enforcement Assistance Administration, Department of Justice) was to develop well-defined communications between the various personnel within the statewide Forensic Treatment System. The components of this system include the Forensic Hospital in Las Vegas, New Mexico community-based mobile evaluation teams (psychological), and, tangetially, referral sources within the larger criminal justice system.

The Wilderness Experience Program has made the attainment of this goal a high priority. Each summer over 100 participants have attended three day river courses. The courses have been organized so that participants come from a common background or professional frame of reference. For instance, one course will be for personnel within the Forensic Treatment System while another is directed to referral sources such as judges, district attorneys, probation officers and so forth.

These short term wilderness experiences are intended to provide individuals with a first hand, experiential, insight into wilderness experiential treatment. The experience enhances the referral agents understanding of the goals and the philosophic constructs of wilderness intervention strategies. Furthermore, communication courses allow for collegial friendships, professional development and information exchange.

Questionnaire/Survey Results

In order to measure the Program's success in meeting the aforementioned goals, a short survey was mailed to the 45 participants of the last three communication courses (June,1978). There was a 38% return rate or n=17.

The questions and the results follow:

1) Do you feel that participation in this wilderness experience provided you with an understanding of wilderness experiential treatment that you would not have otherwise obtained?

Not at All 0% Somewhat 11% Very Much So 89%

2) Do you feel that wilderness experience treatment will be effective with criminal offenders (offender courses will be a minimum of two weeks in length)?

Not at All 6% Somewhat 24% Very Much So 70%

3) Do you feel that an extended wilderness experience will be a helpful tool for the evaluation of criminal offenders?

Not at All 6% Somewhat 24% Very Much So 70%

4) Do you feel that participation in this wilderness experience provided you with an understanding of the Forensic Treatment System that you would not have otherwise obtained?

Not at All 6% Somewhat 18% Very Much So 76%

5) Do you feel that the Forensic Treatment System will be a valuable adjunct to the Criminal Justice System in the State of New Mexico?

Not at All 6% Somewhat 0% Very Much So 94%

6) Do you feel that the wilderness experience enhanced your ability to communicate with the other participants in subsequent work contacts?

Not at All 6% Somewhat 47% Very Much So 47%

7) Please feel free to comment further and/or make suggestions with respect to any aspect of the wilderness experience, Wilderness Program or the Forensic Treatment System:

some of the comments follow:

"I don't feel that three days is sufficient time even for the Communications Component, I would suggest a minimum of five days".

"a communication course for line correctional officers and their superior officers would very advantageous".

"it is difficult to make placements for offenders who can't get away easily due to school or work"

"I feel the concerted effort being made by the Forensic Treatment System to enhance our effectiveness as a "system" has been extremely timely and beneficial. It is a unique experience for me to be so closely acquainted with

others in a statewide network. It provides opportunities for sharing knowlege and experience to all those involved. I am glad to be a part of it".

"As was discussed with the Wilderness Experience staff, I believe that the primary area which needs improvement is the follow-up programs for offenders. The Experience provides an excellent start in that it enables the staff to learn more about an individual in two weeks under that kind of stress than could be learned in a "clinical" environment in months. However, particularly in the rural areas of the state, follow-up is difficult and, at times, unavailable. The solution lies partly in the area of greater funding for the System. Additionally, however, and perhaps more importantly, part of the solution must be found in staffing of the outlying areas with young, aggressive, realistic, and qualified specialists which are as close to the "peer group" of the average offender (in age, at least) as are the staff members of the Wilderness Experience. Funding is, of course, essential here also.

I envision a further problem,however. No matter how dedicated the staff of the Experience may be, the members will eventually tire of the rigors of the program, or at least their family members will do so. One solution to this problem of frequent turn-over of staff may be to tie the follow-up programs into the staffing of the Experience program so that a staff member would only need to serve in the actual wilderness only a few weeks or months of the year. Of course, such a program would enhance the communication between the staff of the Experience and the members of follow-up programs. I expect that it would also be great therapy for the therapists!! Thanks for an enjoyable, educational experience".

Recommendations

The communication courses have been successful in terms of their original intent. Personnel within the Forensic System and referral agents report that they are confident that the Wilderness Experience has therapeutic value.

There is an ongoing need for communication courses for two reasons. First, in a large state like New Mexico it is easy for isolated community based personnel to lose contact with the central agency and connecting agencies. Second, there is a high turn-over rate among referral sources. In Albuquerque over 50% of the juvenile probation officers from last year are no longer there. Familiarizing referral sources about the program is an on-going concern.

A high priority for the communication courses in 1979 should be

to plan systematic follow-up activities to the wilderness experience. Even though the mobile evaluation teams write up individualized counselling plans, a graduate of a wilderness course would benefit from the sense of community and group support inherent in the 17 day wilderness experience. This should be a priority for the juvenile wilderness program graduates rather than the adults graduates who are paroled to jobs, different States, etc., and consequently, have practical problems with follow-up courses. Follow-up should be more systematic.

IV. RESEARCH ON TREATMENT EFFECT

Juvenile Division

The selection of any psychometric test should never take place in a conceptual vacuum divorced from the primary goals of the program or treatment being evaluated. The selection of the Tennessee Self-Concept Scale to assess the therapeutic effect of the Wilderness Experience Program can be best understood in light of theory and programmatic goals.

From a variety of studies using empirical methodologies, there is mounting evidence that the delinquent can be differentiated from the non-delinquent on the basis of self-concept. These studies usually find that the self-concept of the non-delinquent to be much higher or more positive.

The hypothetical explanation is that the non-delinquent is insulated against delinquency by a favorable self concept. An unfavorable self concept, however, provides no such insulation and is viewed as propulsion toward delinquent behavior.

The Wilderness Experience Program presents an individual with a series of problems and obstacles which can be overcome through a summoning of will power. The wilderness environment is a concrete environment devoid of the complexities of modern urban life. Hence, problems are manageable. Through success experiences the Wilderness Experience Program claims to help reconstruct each client's sense of self-worth and sense of power and autonomy. The assumption is that if the program elevates an individual's self-concept then you reduce

the likelihood of future delinquent acts.

The Tennessee Self-Concept Scale measures psychological change along number of dimensions related to self-concept. For this reason the test appears to be a logical measure of programmatic outcome.

An abstract of the research follows:

SUBJECTS: The Tennessee Self Concept Scale (TSCS) was administered to the juvenile participants on six different Wilderness Experience Courses. The test was taken immediately preceding the course and again at the end of the course. There was a total of 56 subjects. This total was comprised of 12 individuals from Course J-1, 8 from J-2, 8 from J-4, 12 from J-5, 6 from J-7, and 10 from J-8.

METHOD: Although subjects participated in differing environments and with different instructors, the therapeutic process was the same in each course. In each case, subjects experienced a 14-17 day course with a training phase, an expedition phase, a solo and a final expedition.

ANALYSIS: Analysis of Variance tested course differences to insure that courses had consistent effects. The treatment effects were stable across all six courses. There were no significant interactions.

Directional T-tests were employed to measure for statistical differences between the pre and post tests on the TSCS.

RESULTS: The pattern of change on all variables examined in the TSCS test was positive and statistically significant at the .01 level. That is to say, there was only 1 (one) chance in a hundred that this pattern occurred by chance. The finding substantiated a similar finding

made earlier in the program's history by Dr. Richard Fink. Table 1 below indicates significant changes on the following variables:

1. Increased self concept on "Total P". This is a composite variable of which all other variables are subsets.
2. Increased "Personal Self"
3. Increased "Positive Behavior"
4. Lower "Neurosis"
5. Lower "General Maladjustment"

RESULTS: TENNESSEE SELF CONCEPT SCALE--JUVENILE DIVISION (N=56)

	PRE-TEST			POST-TEST				
VARIABLE	RAW	T-SCORE	%	RAW	T-SCORE	%	T-Test	Dir. of Change
TOTAL CONFL.	36.23	75	99	34.38	73	98	N/S	+
POS. BEHAV.	101	36	8	103.1	38	12	*	+
PHYSICAL S.	66.19	41	20	68.02	44	27	N/S	+
PERSONAL S.	63.29	47	40	65.39	51	53	**	+
DEFENSIVE POS.	56.91	52	57	58.48	53	61	N/S	+
GEN. MALAD.	84.32	65	94	86.14	63	92	*	+
PSYCHOSIS	55.04	64	93	55.25	64	93	N/S	+
PERS. DIS. S.	62.46	62	88	61.5	61.5	87	N/S	+
NEUROSIS	76.71	58	78	80.87	54	69	**	+
PERS. INTEG.	7.61	41	20	7.643	41	20	N/S	+
NDS	30	70	97	31.82	68	96	N/S	+
TOTAL "P"	313.16	38	14	322.04	42	23	**	+

* indicates significant at the .10 level
** indicates significant at the .025 level
direction of change, significant at the .01 level

Significance levels are based on 40 degrees of freedom are consequently CONSERVATIVE!

TABLE 1

Discussion of Results

The following is an elaboration of the preceding table:

TOTAL CONFLICT - High scores indicate confusion, contradiction, and general conflict in self perception. Note that the 56 juveniles referred to the Wilderness Experience Program were two and one half standard deviations above the national norms on this variable.

POSITIVE BEHAVIOR - This score measures the way an individual perceives his/her own behavior or the way he/she functions. The 56 juveniles in this study were very deviant on this scale also. Before the wilderness course, individuals viewed their behavior less positively than 92% of the population. This is probably a realistic assessment. However, following the wilderness experience this score significantly raises one half of one standard deviation.

PHYSICAL SELF - This score reflects the subject's view of his/her body, his/her state of health, his/her physical appearance and sexuality. The positive change reflected in the pre-test/post-test scores approaches but does not reach the .10 significance level.

PERSONAL SELF - This score describes the individual's sense of personal worth, his/her feeling of adequacy as a person and his/her evaluation of his/her personality apart from his/her body or his/her relationship with others. In the case of the 56 subjects their personal self is moderately well defended and furthermore, rose significantly on the post-test.

DEFENSIVE POSITIVE - This score is more meaningful when scores are at extreme ends of the normal curve. Such distortion would be indicative of psychotic breaks. The Wilderness Experience clients scored within one standard deviation of the general population mean score.

GENERAL MALADJUSTMENT - The profile on the 56 clients on this variable closely resembles the scoring profile of other delinquent populations using the TSCS. Scores are high - 94th percentile in norm populations. This variable is highly correlated with the total conflict score reported earlier.

PSYCHOSIS - The psychosis scale is based on 23 items which differentiate psychotic patients from other groups. Delinquent populations usually fall between one-half and one standard deviation above the mean on the Psychosis Scale. The Wilderness Experience clients, however, were one and a half standard deviations above the mean.

PERSONALITY DISORDER SCALE - The 27 items of this scale are those that differentiate this broad diagnostic category from the other groups. This category pertains to people with basic personality defects and weaknesses in contrast to psychotic states or the various neurotic reactions. High scores on this scale are typical for delinquent groups.

NEUROSIS - T-tests suggest that the Wilderness Experience has a therapeutic effect in lowering neurosis scores from the pre-test to the post-test. This effect is significant at the .025 level.

PERSONALITY INTEGRATION--This scale identifies those individuals well-integrated in personality. High scores indicate a feeling of well-being, a sense of power and self-actualization. As expected, Wilderness Experience referrals scored low on this scale and these low scores were treatment resistant.

The NDS score is an indication of psychological deviation. It is a summary of all other deviant features and it discriminates maladjustment or pathology better than any other score. As one would probably predict the 56 referrals score in the 97th percentile on this measure.

TOTAL "P" - This is the single most important score. It reflects the overall level of self esteem. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed and unhappy. These individuals have little confidence in themselves. The delinquents Total P score is typically in the range of 300 to 315. This was true also for the Wilderness Experience Program referrals. However, the post-test scores show a statistically significant improvement (.025 level) beyond this range. This half a standard deviation increase in self concept lends empirical evidence to the claim that a 17 day Wilderness Experience impacts the way delinquents view themselves.

The Wilderness Experience Program has a positive therapeutic effect. The course is reducing feelings of confusion, alienation and maladjustment and concomitantly, increasing positive feelings about the individual's view of his/her behavior and his/her self-esteem.

One should not, however, over-generalize from these results. That they are statistically significant does not mean that they are behaviorally significant. For instance, raising a person's self-

concept to the 42nd percentile, show the person views himself differently. But how such a change modifies subsequent behavior is theoretical. However, the low recidivism rates, though non-controlled, lend evidence that the program modifies subsequent delinquent behavior. In addition, this objective data is complemented by the response of juvenile probation officers who rate the program highly effective in changing delinquent behavior in over 60% of the cases they refer.

ADULT DIVISION:

Pilot Study Since the first adult wilderness course in 1976, Dr. Susan Cave, a psychologist at the Forensic Hospital in Las Vegas, has been conducting psychological testing with the participants. The MMPI (Minnesota Multiphasic Personality Inventory) has been taken by all adult referrals both immediately before and after the 17 day therapeutic wilderness experience. The MMPI is a well established test used in clinical settings to determine psychological profiles along a number of dimensions.

The data from these preliminary research efforts are summarized in a paper which Dr. Cave presented to a National Forensic Psychologist Convention in Texas in 1977. This paper is presented in Appendix B.

To summarize the findings of this study, however, Dr. Cave found that at least 80% of the adults who completed the course returned less depressed, paranoid, suspicious, tense and worried. This change in mood was accompanied by an increase in morale, self-concept, coping skills, and ego-strength (85%).

These positive results and dramatic MMPI profile changes suggested

that the Wilderness Experience was a viable and clearly beneficial treatment modality. This study also prompted a follow-up study to test for two hypotheses or questions:

1. Could the results be duplicated in another experiment with a controlled comparison group?

2. How key are physiological and psychological stress as factors in producing the aforementioned therapeutic changes?

The more recent Cave research study was a three by two factor experiment. Subjects were treated as members of one of three groups: a control group which remained incarcerated and received no Outward Bound training; a high stress group which attended a mountaineering course in the San Juan Mountains of Colorado; and low stress group which completed a river trip through Cataract Canyon along with some canyon exploration.

The high stress course differed from the low stress course in terms of the daily average of heavy aerobic exercise. Stress was operationally defined as physical stress. It is my subjective opinion, however, that the high stress group also faced greater psychological stress than the low stress group. The high stress group carried heavy packs at high altitudes for an average of 4-5 hours a day. They faced apparent danger on a regular basis-on an exposed, technical peak climb and thru several days of rock climbing. The low stress group experienced virtually no aerobic exercising - less than 30 minutes a day - and only two days of rapids.

The Minnesota Multi-Phasic Inventory (MMPI) was administered both before and after the course. In addition "sociograms" were filled out by each participant pre and post in order to measure group

cohesiveness. Behavior observations by the instructors were utilized to informally validate changes revealed through the aforementioned MMPI and sociograms.

RESULTS: The data was analyzed using analysis of variance and multiple comparisons. The analysis was sensitive to differences that existed within the groups prior to the 17 day experience and statistically compensated for them. The post test results showed provocative changes over the 17 day period. The control group - those who had remained incarcerated - got worse. Psychologically, as a group, these institutionalized men grew significantly more depressed and paranoid. This was an unanticipated finding, although it is not surprising in retrospect.

The low stress group remained virtually the same. That is to say, their MMPI scores did not change significantly following the 17 day wilderness experience. The high stress group, however, showed a statistically significantly more healthy psychological profile following the wilderness course.

The results are collapsed into a simplified table below.

TABLE 2

3(CONTROL,HIGH STRESS,LOW STRESS) X2 (PRE,POST)
ANALYSIS OF VARIANCE ON THE VARIABLES

VARIABLE	(GROUP) MAIN EFFECT alpha level	INTERACTION alpha level	F-TESTS alpha-level
EGO	.402	.04*	* .10
DEPRESSION	.044*	.628	*** .01
HYSTERIA	.042*	.859	N/S .20
ANTISOCIAL	.122	.304	N/S .40
M/F	.738	.159	* .10
PARANOIA	.044*	.015*	N/S .50
UPTIGHT	.530	.238	N/S .15
SCIZOPHRENIA	.269	.873	N/S .25
MANIA	.251	.700	** .05

The results of this more controlled, follow-up study replicate and support Dr. Cave's pilot study. Although certain dimensions changed, the overall picture is supportive of Cave's earlier positive conclusions. Individuals became significantly less paranoid, less inhibited and less depressed. Additionally the clients had a more realistic ego-strength characterized by less bravado and more open to self-criticism.

Conclusions

1. The Wilderness Experience has a positive statistically significant treatment effect.

The study suggests that clients return with more insight concerning their effect upon others. The lower scales on depression and paranoia are clinically important in that they indicate less internal distress. In general, participants seem to return from the wilderness experience more alert, active, cheerful and outgoing. These auspicious findings underscore the efficacy of the program as a rite of passage from institutionalization. Individuals are less sociopathic and hence, prognosis for rehabilitation is more optimistic.

2. High stress was a significant variable in producing these changes.

Not only was there greater individual psychological growth in the more physically and psychologically stressful course but there was a concomitant payoff in group cohesiveness and unity. As a corollary to the MMPI data, the sociograms administered both pre and post indicated that the high stress group was a more cohesive group. Individuals in the high stress group were more

likely to see one another as friends, expressed greater trust in one another and saw a greater number of potential leaders within the group. The low stress group was more divided and there was observed intergroup hostility.

Finally, a caveat: it seems that just as stress is a necessary condition for positive growth on a wilderness course, there is also a top line condition. It is likely that there can be too much stress. At such a point the individual or group is overwhelmed. For many criminal offenders it was just such a psychological overload of stress that lead them to socially deviant behavior in the first place. The theoretical position is that wilderness adventure training for criminal offenders renders the individual better prepared to handle stress of all kinds once he is on the streets. This remains a hidden assumption.

V. REFERRALS

Referral Sources

The New Mexico Corrections Master Plan, a task force report to the Governor, articulated a plethora of urgent needs for the correctional system in the State. Specifically, the report pointed out New Mexico's shortage of pre-prosecution diversion programs and the need to develop alternatives to incarceration at sentencing. The lack of such programs and alternatives, the report determines, compounds the over-crowding of correctional facilities. Furthermore, the younger, less serious offender often "suffers more than benefits from incarceration with more hardened offenders". The creation of more diversionary programs and alternatives to incarceration would help reduce over-crowding in instiutions and, at the same time, segregrate 1st offenders from hardened and habitual criminals.

Besides recognizing the obligation the State has in increasing options prior to institutionalization, the Master Plan also calls for the development of pre-release programs for those inmates, not diverted, who have served their sentence and are about to reenter society.

The Wilderness Experience Program is an existing program which functions as both a diversionary/alternative to incarceration and also as a re-integration program. See Table 3. At all times the program is a treatment modality although this role is a primary one in the case of referrals from the Forensic Hospital and a concomitant one with re-integration and diversionary referrals.

Juvenile Division: Over 60% of the juvenile referrals are diversionary by nature. These referrals come from public defenders, district attorneys, judges and probation officers.

In a follow-up study of 40 youths who had been through the wilderness experience, the individual's juvenile probation officer was asked of the efficacy of the program in inducing positive behavior change. The program was considered "highly effective" in 61% of the cases, "somewhat effective" in 29% and "not effective at all" in only 10% of the cases, according to the probation officers. The J.P.O.'s suggested that the program was most effective for 1st offender, non-violent youth. Several probation officers remarked that graduation from the wilderness experience had been a positive turning point for juveniles whom they had referred to the program.

Other sources of juvenile participants have included: 1) Hogares, Santa Fe and Arrowhead Group Homes 2) Youth Development, Inc. 3) The Youth Diagnostic Center and 4) Youth labelled CHINS, i.e. Children in Need of Supervision.

The Juvenile Division of the program is currently exploring the concept of using the wilderness course as a re-integration program for Springer (Boys' Reform School). This connection is likely to come about in fiscal 1978-1979.

TABLE 3

REFERRALS

JUVENILE DIVISION

PAROLE OR PROBATION		40%
ALTERNATIVE TO INCARCERATION		60%
RE-INTEGRATION PROGRAM		0
	TOTALS	100%

ADULT DIVISION

PAROLE OR PROBATION		35%
ALTERNATIVE TO INCARCERATION (Diversionary Referral)		57%
RE-INTEGRATION PROGRAM		8%
	TOTALS	100%

Adult Division: Fifty-seven per cent of the Adult Division referrals are diversionary in nature. The offenders are referred by district attorneys, public defenders, probation officers, and judges. Often times a pre-sentence participant will be recommended for probation contigent upon successful completion of the wilderness course.

The Forensic Hospital utilizes the wilderness experience as both an evaluation tool and also as part of an individual's ongoing therapy plan. The Hospital psychologists praise the program as boasting their clients' self-esteem, sense of responsibility and optimistic, forward drive. The program has been been surprisingly effective in dealing with chronic schizophrenics, a highly treatment resistant group. Psychometric tests and experimental research support these claims. These data were reported in Section IV.

Most recently, the Penitentiary, through the impetus of the Parole Board, has referred participants to the program. The Parole Board values the program as a testing ground for the individual's psychological readiness for parole and/or early release. Besides serving as an evaluative testing ground the program serves as a transitional step from institutionalization to "the streets". Much of the counselling during the 17 day course is directed at this transition. Oftentimes wilderness challenges serve as metaphors for problems individuals will face within society upon their release.

In the coming year the role of the Wilderness Experience Program as a re-integration program will become larger for both the adult and juvenile divisions as Springer and the Penitentiary increasingly utilize the

wilderness experience as a resocializing experience prior to release.

The Demographic Characteristics of Participants

Juvenile Division: The average age of juvenile participants is 16.1 years with the range being 14-17 years. The ethnicity of the referrals was 38% Anglo, 5% Black, 53% Spanish, 2% American Indian and 2% Japanese American.

Over 30% of the youth had never had a criminal offense or trouble with the police prior to their trouble which resulted in their referral to the wilderness experience. However, 38% had one to two prior offenses and 32% had three or more. In 82% of the cases, individuals had committed felonies while 18% of the referrals committed misdemeanors or status offenses.

Thirty-five per cent of the juveniles live with both parents at home. Twenty-nine percent live in one parent situations while another 20% live with a relative. Only 10% are living in group homes or institutions. The remaining 6% are classified as living independently.

Adult Division: The adult client averages 22.3 years in age. The adult referrals have been 55% Spanish, 30% Anglo and 15% other ethnic groups. The adult participant profile is variable depending on the referral source. Diversionary referrals tend to be 1st offenders with non-violent crimes whereas the parolees from the penitentiary or the Forensic Hospital have more serious offenses, a longer criminal history and tend to be older. Crimes committed by these adults include burglary, forgery, robbery, sex offenses, assault and murder. The picture of a "typical" referral is elusive.

AGENCIES THAT HAVE MADE REFERRALS TO THE WILDERNESS EXPERIENCE PROGRAM

Roswell Correctional Center
Los Lunas Correctional Center
New Mexico State Penitentiary
    Gunther Haselbauer
    New Mexico State Parole Board

Forensic Hospital, Las Vegas, New Mexico
    Elliott Rapoport, Ph.D.
    Susan Cave, Ph.D.

New Mexico Youth Diagnostic Center
    Richard Rodriguez, Ph.D.
    Nancy Lee, Ph.D.

Eagles Nest Boys School
    Jim Best, Ph.D., Director
    of Ed./Programs,
    Department of Corrections

Southwest Mental Health Center, Las Cruces, New Mexico
    T.C. Thompson, Ph.D.
    Sam Caron, Coordinator of Children's Services

Bernalillo County Mental Health Center, Albuquerque, New Mexico
    Karl Koenig, Ph.D.

Community Counseling and Resource Center, Santa Fe, New Mexico
    Dave Murdock
    Cheryl Gardopee
    Ellen Fox

Community Counseling and Resource Center, Roswell, New Mexico
    Milo Garcia

Guadalupe Clinic, Santa Fe, New Mexico
    Gene Reed, Ph.D., Director

San Juan Pueblo Drug Abuse Program - Eight No. Tribal Council
    Jim Cleveger, Director

Delancey Street Foundation, San Juan Pueblo

T.A.S.C., Albuquerque, New Mexico
    Jackie Pieracci

Arrow Head Boys Home, Pecos, New Mexico
    Brother Maur

Hogares, Inc. Albuquerque, New Mexico
    Gloria Devrey, Director
    Don Hogan, Counselor

Youth Development - SW Albuquerque, Inc.
Loraine Trajeque, Counselor

C.H.I.N.S. Pilot Project, Silver City, New Mexico
Alberto Cordova

Project C.H.I.P. Albuquerque, New Mexico
Blake While, Director

Las Cruces Schools, Dona Ana County
Paul Taylor, Asst. Super. of Instruction

PROBATION OFFICES (Juvenile)

District I	John Dantis, Rio Arriba County Walter Vigil
District II	Keith Deckwith, Bernalillo County Don Rupe Betsy Kuhn Rey Chavez Linda Borrego Cindy Remington Bes Cleval Sandy Johnson Kirt Lestley Maryann Smith
District III	Raron Villa, Dona Ana County Henrietta Vargas
District IV	Ernest Kavanaugh, Las Vegas, New Mexico Grace Patron
District VIII	Wanda Hughes
District XI	David Hasel, Farmington, New Mexico George Divea
District XII	Ernie Rondeau, Hobbs, New Mexico Paul Lazarski, Alamagordo/Tularosa Maria Rozmal

PROBATION OFFICES (Adult)

District I	Ed Lucero, Santa Fe, New Mexico
District II	Denise Cration, Albuquerque, New Mexico Judy Glever

District IX — Jim Byrd, Roswell, New Mexico

District XI — Buford Clark, Farmington, New Mexico

District XIII — Richard Manzanares, Las Lunas, New Mexico

PRE-PROSECUTION PROGRAMS:

District I — Roslin Thonen, Santa Fe, New Mexico
Rosil Teicholz

District II — M.L. Traklaud, Albuquerque, new Mexico

District XI — Jean Torrano, Gallup, New Mexico

DISTRICT ATTORNEY'S OFFICES:

District I — Dick Baker, Santa Fe, New Mexico
Dennis Murphy

District II — Sarah Siehol, Albuquerque, New Mexico

District XI — Jay Rosenthal, Grants, New Mexico

PUBLIC DEFENDER'S OFFICES:

District I — Susan Cucukow, Santa Fe, New Mexico
Marti Daley, Santa Fe, New Mexico

District II — Janice Hensolt - Ellis, Albuquerque, New Mexico
Jackie Robbins
Joseph Riggs
Carol Killer, JoAnn Sanchez

District XI — Michael Stout, Roswell, New Mexico

District XII — Peter Hebard, Alamagordo, New Mexico

DISTRICT COURT OFFICES:

District I — Judge Kaufman, Santa Fe, New Mexico

District II — Judge Riordan, Albuquerque, New Mexico

District III — Judge Barker, Las Cruces, New Mexico
Judge Gahan

Santa Fe Group Home

Amistad Temporary Shelter, Albuquerque, New Mexico
Chuck Davidson

AGENCIES THAT HAVE PARTICIPATED IN COMMUNICATION COURSES

San Juan Mental Health Center, Farmington, New Mexico
Community Counseling and Resource Center, Roswell, New Mexico
Artesia Council for Human Services
Youth Diagnostic Center
San Miguel County Youth Service Program
Santa Fe Group Home
Hogares, Inc.
First Offender Program, Las Vegas, New Mexico
Eight Northern Pueblos Drug Abuse Program
New Mexico Administrative Office of the Courts
Fort Canyon Youth Center
Bernalillo County Mental Health Center
Vista Sandia Psychiatric Hospital
Albuquerque Public Schools
Alternative House, Albuquerque, New Mexico
CETA Program, Santa Fe and Albuquerque, New Mexico
Forensic Evaluation Teams - Farmington, Albuquerque, Roswell,
Las Cruces, Santa Fe, New Mexico
New Mexico State Parole Board
New Mexico State Women's Honor Unit, Albuquerque, New Mexico
Las Cruces Correctional Center
Delancey Street
Forensic Hospital
Self Help Center, Farmington, New Mexico
Counseling and Resource Center, Santa Fe, New Mexico
Southwest Mental Health Center
Alternative High School, Santa Fe, New Mexico
Public Defender's Offices - District I, II, IX
District Attorney's Offices - District I, III, IV, X
Juvenile Probation Offices - Districts I, II, III, XII
Adult Probation Offices - District I, IX
Bridge Crisis Intervention Center, Las Vegas, New Mexico

VI RECIDIVISM

Definitions of Recidivism

Recidivism was operationally defined in three ways for purposes of this study. The definitions used were the following:

1. Has the individual committed a criminal act which has resulted in a reconviction by a court?
2. Has the individual violated parole or probation in a manner which resulted in an adverse change in the offender's legal status?
3. Has the individual returned to delinquent or socially unacceptable behavior resulting in police contact?

The aforementioned definitions of recidivism were utilized within the context of two time frames:

1. recidivist casualty within three months following the wilderness course
2. recidivist casualty within nine months following the wilderness course

Recidivism Percentages

The recidivist rate for juvenile graduates of the wilderness experience fluctuates depending on the definition and time frame utilized. The low is a 10% recidivist rate for reconviction within three months after the course while the high is a 28% rate of police contact within nine months of course completion. See Table 4 and Table 5.

The recidivism rate for the adult participants is, like the juvenile rate, subject to the vicissitudes of the operational definition. Based on a follow up survey the rate is quite low, 3 out of 39 or an inferential rate

of 8%. None of these three committed violent crimes. One individual committed statutory rape with a 17 year old girl; one violated parole by attempting to escape while undergoing psychiatric evaluation at the Forensic Hospital in Las Vegas; and the third forged a check and later attempted to escape from an Honor Farm.

Comparative figures are unfortunately not available for the State of New Mexico and the Department of Corrections has not operationally defined recidivism. Using the 40% national rate quoted in the Kelly and Baer Study (1968) for juvenile offenders then both the conservative figure of 10% and the liberal figure of 28% improve upon this rate. (See Table 4 and Table 5). The 8% adult rate also compares favorably with the 14% figure quoted as the New Mexico rate for recidivism within the same calendar year for adult offenders.

Client Variables Significantly Related to Post Program Recidivism

Why is one person a recidivist casualty while another isn't? Some variables related to this question which have been identified as statistically significant are the following:

1. Chronological age at the time of participation in the wilderness experience (older more likely to succeed)
2. aggressiveness level (less violent most likely to succeed)
3. last school grade attended
4. marital status of parents

See Appendix C for breakdown of significant variables related to recidivism found in other studies.

JUVENILE PARTICIPANT'S RECIDIVISM
WITHIN THREE MONTHS OF WILDERNESS EXPERIENCE

	RECONVICTION		CHANGE IN LEGAL STATUS		POLICE CONTACT	
	YES	NO	YES	NO	YES	NO
JUVENILES WHO PASSED WILDERNESS COURSE	4	36	4	36	4	36
N=40	10%	90%	10%	90%	10%	90%
JUVENILES WHO FAILED WILDERNESS COURSE	6*	0	N/A	N/A	N/A	N/A
N=4						

* A total of 6 youths have failed the Wilderness Experience Program and consequently, were sent to the Boy's Reform School, Springer, New Mexico.

TABLE 4

JUVENILE PARTICIPANT'S RECIDIVISM WITHIN NINE MONTHS OF WILDERNESS EXPERIENCE

	RECONVICTION		CHANGE IN LEGAL STATUS		POLICE CONTACT	
	YES	NO	YES	NO	YES	NO
JUVENILES WHO GRADUATED FROM WILDERNESS EXPERIENCE OVER NINE MONTHS AGO	4 17%	19 83%	4 17%	19 83%	5 22%	18 78%
JUVENILES WHO GRADUATED FROM WILDERNESS EXPERIENCE OVER NINE MONTHS AGO, PLUS ALL RECIDIVISTS SHORT OF THAT PERIOD	6 24%	19 76%	06 24%	19 76%	07 28%	18 72%

TABLE 5

Wilderness Course Drop-outs or Failures

The wilderness experience is a success experience by programmatic intent and design. Despite the intent, a certain number of participants fail the course. Usually this is for one of two reasons. Either participants drop out themselves or they disregard a personal pledge to refrain from alcohol, marijuana and solvents while on the course. There have been four adult failures and six juvenile failures.

The Wilderness staff have learned that failure to complete the course is an excellent predictor of recidivism. It follows that if a participant can not function within the highly structured environment of a ten man group in the simplified environment of the wilderness, it is likely he will not adapt to the larger social contract on the "streets".

Statistics confirm this hypothesis. Using a chi-square level of analysis, the recidivist rates between the adult and juvenile graduates versus their respective failures was significant at the .01 level. That is to say only one change in a hundred that these differences occurred by chance. See Table 6.

Conclusion

No conclusive statement can be made regarding the wilderness experience program's ability to reduce recidivism. Such a definitive statement is compromised by the selective nature of program referrals. For instance, the Parole Board and the Penitentiary decide that some offenders are ready for parole and release contingent upon completion of the wilderness experience. Or in another case a judge has a good feeling about a person and refers them to the program rather than Springer. There is a selection bias in the program referrals.

TABLE 6
RECIDIVISM RATES
OF WILDERNESS COURSE GRADUATES
VS. COURSE FAILURES

		Recidivist Rates*	
ADULT DIVISION	GRADUATES	8%	XXX
	FAILURES	100% (4 of 4)	
JUVENILE DIVISION	GRADUATES	24%	XXX
	FAILURES	100% (6 of 6)	

* Recidivism Rate used based on change in legal status within nine months of completion of the wilderness experience

XXX - significant at the .01 level.(Chi square)

Clients have been judged a priori to be good risks. Thus, any inferential conclusions between groups - wilderness course graduates vs. regular sentencing-are spurious.

VII COST EFFECTIVENESS

Utiliziation and Delivery of Service

The Wilderness Experience Program has treated one hundred and three (103) adult clients with 1425 client days; one hundred and nine (109) juvenile clients with 1470 client days and over 300 state personnel associated with Criminal Justice and Mental Health Systems (with 900 client days).

The data indicate that the Wilderness Experience Program has increased "program effectiveness" by maximizing client utilization rates and subsequently lowering client per diem rates.

Both the Adult and Juvenile Divisions of the Program are receiving increased numbers of appropriate referrals. The Adult Division has lifted its utilization rate from a low of 42% of client capacity to its present 72% rate. The Juvenile Division has had an even greater delivery of service from its inchoate rate of 67% to a 88% rate in the first fiscal quarter 1978-1979. See Table 7, Table 8, Table 9 and Table 10. Referrals have increased for at least three reasons.

1. time proven efficacy of the wilderness experience as a treatment modality and diversionary program.
2. The Forensic System (in 1978) placed mobile psychological evaluation teams around the State of New Mexico. This made the logistics of referral much simplified.
3. the use of the program by the Parole Board as an early release/resocialization program.

TABLE 7
JUVENILE COURSES:

CLIENT DAYS

COURSE #	COURSE DATES	# CLIENTS	# DAYS	# CLIENT DAYS	
J-1	7/27-8/12/77	14	16	224	
J-2	10/17-10/30/77	09	13	117	
J-3	12/5-12/18/77	09	13	117	
J-4	1/30-2/12/78	11	14	154	77/78
J-5	4/20-5/2/78	14	13	182	
J-6	6/2-6/9/78	10	07	70	
J-7	7/15-7/27/78	12	13	156	
J-8	9/18-10/4-78	15	16	240	1st Q 78/79
J-9	11/7-11/21/78	15	14	210	
	TOTALS	109	119	1470	

TABLE 8

ADULT COURSES:

CLIENT DAYS

COURSE #	COURSE DATES	#CLIENTS	# DAYS	#CLIENT DAYS	
A-1	12/13-12/22/76	12	9	108	
A-2	2/14-3/1/77	10	16	160	76/77
A-3	4/12-4/29/77	06	18	108	
A-4	7/14-1/20/77	10	16	160	
A-5	9/22-10/5/77	11	16	176	
A-6	11/6-11/19/77	08	13	104	77/78
A-7	2/10-3/5/78	08	16	128	
A-8	4/2-4/19/78	05	06	30	
A-9	5/15-5/2/78	10	06	60	
A-10	8/17-9/12/78	10	17	170	
A-11	10/16-11/1/78	13	17	221	1st Q 78/79
	TOTALS	103	150	1425	

TABLE 9

WILDERNESS EXPERIENCE UTILIZATION RATES BY

GRANT YEAR (JUVENILE PROGRAM)

FISCAL GRANT YEAR (by half)	NUMBER OF COURSES	NUMBER OF AVAILABLE OPENINGS	NUMBER OF YOUTHS TREATED	NUMBER OF VACANCIFS	UTILIZATION RATE (BY PERCENTAGE)
1st HALF 1977-1978	3	48	32	16	67%
2ND HALF 1977-1978	3	48	35	13	73%
1st HALF 1978-1979	3	48	42	6	88%
TOTALS	09	144	109	35	76%

WILDERNESS EXPERIENCE UTILIZATION RATES
BY GRANT YEAR (ADULT PROGRAM)

GRANT YEAR	NUMBER Of COURSES	NUMBER OF AVAILABLE OPENINGS	NUMBER OF CRIMINAL OFFENDERS TREATED	NUMBER OF VACANCIES	UTILIZATION RATE (by percentage)
1976-1977	3	48	28	20	42%
1977-1978	6	96	52	44	54%
1978-1979 (1st Quarter	2	32	23	09	72%
TOTALS	11	176	103	73	59%

TABLE 10

Per-Diem Costs

As a result of increased program delivery, client per diem rates (cost per day per client in the wilderness) declined to $47.99, the lowest point since initial program implementation. See Table 11. Earlier the rate was as high as $85. This figure ($47.99) is liberal - it is based on total program budget divided by client days in the field. This rate does not include the full delivery of service - many hours of referral processing, follow-up interviews with clients, extensive reports to follow-up agencies and various sundry tasks.

Comparative costs show that the Wilderness Experience Program is less expensive than other residential therapeutic programs but more expensive than the Penitentiary and/or Springer. See Table 12.

Hidden Cost Savings

To fully estimate the cost effectiveness benefit to the state of New Mexico one must analyze the diversionary nature of the program. Over 60% the referrals to the program are diversionary. Hence, with each referral the state avoids prosecution costs and the additional costs of incarceration.

The potential cost to the State differs with each individual case. The criminal justice process leading up to, but not including trial, is estimated at approximately $1,800. A two-day trial for a 1st offender, 4th degree felony is an additional $2,000. In light of these costs and the potential annual cost of $5,000 - $14,000 for incarceration, the Wilderness Experience Program has additional hidden cost benefits. In most cases the cost of trial would greatly exceed these estimates.

TABLE 11
PER DIEM COSTS IN FIELD
ON 1ST FISCAL QUARTER, 1978-1979

	ANNUAL BUDGET	QUARTERLY BUDGET	CLIENTS DAYS IN FIELD *	PER DIEM COST IN FIELD
JUVENILE PROGRAM	$85,700	$21,425	471	$45.48
ADULT PROGRAMS	$94,200	$23,550	466	$50.53
TOTALS	$179,900	$44,975	937	$47.99

* includes communication course referrals prorated on a quarterly basis

TABLE 12

COMPARATIVE COSTS OF VARIOUS
RESIDENTIAL INSTITUTIONAL SERVICES
IN NEW MEXICO

	PER ANNUM	PER DIEM
WILDERNESS EXPERIENCE PROGRAM		PER DIEM IN THE FIELD $48
DETENTION CENTER ALBUQUERQUE		$34
NEW MEXICO FORENSIC HOSPITAL		$54
SPRINGER (BOY'S REFORM SCHOOL)	$9,000	$27
CHILDREN'S PSYCHIATRIC CENTER	$40,000	$109.58
PENITENTIARY	$ 4,500	$ 13.50
VISION QUEST	$22,000	$ 64

. CAVEAT: These costs were verbally quoted to this evaluation by an official within the accounting office of the Criminal Justice Department. They are comparative, not definitive.

The recidivism data indicate that the clients who are referred to the program have a lower than average recidivism rate. This is partially due to the selective nature of the program - i.e., a disproportionate number of 1st offenders who have a better than average predisposition not to recidivate. One could, however, cautiously infer that the low recidivism rates are at least partially due to the wilderness intervention and therefore, pass on an additional cost savings to the state.

In revieweing the literature of cost-effectiveness research within the criminal justice system, this researcher discovered some provocative findings. They are germane to the question, "Is the Wilderness Experience cost effective"? There are a growing number of studies questioning the value of traditional correctional programs. The bulk of these studies are well summarized in Jim Robison and Gerald Smith's article entitled "The Effectiveness of Correctional Program" and in Kassebaum, Ward and Wibueis book Prison Treatment and Parole Survival.

The New Mexico Correction Master Plan pointed out that the state was putting too many people into correctional institutions and keeping them too long. Recently the state of California, whose correctional institutions face similar problems as those outlined in New Mexico's Master Plan, completed a provocative controlled experiement.*

At issue was the question, "does the length of prison sentence have any effect on reducing crime after parole"? The California Adult Authority agreed to participate in an experiment in which early releases

*Norman Hold, "Rational Risk Taken", Some Alternative to Traditional Corrections Programs", Pp35-48 in Proceedings: Second National Workshop on Corrections and Parole Administration, San Antonio, Texas, March, 1974.

would be granted to a group of inmates selected at random. The procedure was to create a study sample of 1,300 inmates who had been granted parole dates six months in the future. Using a random table of numbers half the men were selected to be released 6 months early while the others were paroled at normal time.

The important point is that the early releases were not selected by any criteria, subjective or otherwise. The parole performance of both groups was evaluated one year after release (Berecochea, Jaman,and Jones, 1973). As had been expected the performance of the early releases was not significantly better or worse than the control group.

Research has reached the point when we can say with some confidence and degree of certainty, both that incarceration does not rehabilitate nor do longer sentences defer the offender.

Where does that leave us? I think it leaves us in where the most "rational correctional policy is not only the most humane but the cheapest, and that policy is to get people out of our correctional systems as soon as possible and keep them out". (Holt p.45)

How does this relate to the Wilderness Experience Program? It says that even without the very positive evidence which indicates positive psychological change, positive behavior change and lower recidivism rates following a wilderness experience - even in their absence the wilderness experience passes savings on to the public. As a diversionary program and an early release/resocialization program the effect is the same -- less public money spent towards incarceration.

VIII CLIENT REPORT

THE WILDERNESS EXPERIENCE: A DEMAND TO PERFORM

I am a 27 year old man who has experienced mental illness and criminal actions which in combination have placed me in court ordered confinement. I resisted that confinement though never violently. However, time, medication, and individual therapy brought me to the point of seriously trying to discover the roots of my problems and then to try and deal with the problems and hopefully find some solutions.

At this point I was accepted into the Wilderness Experience Program and began to prepare physically for it. My mental outlook on the whole idea of 16 days in the Wilderness was positive if only for the reason that I was going to have a "change of scenery and activity." I had always related to nature positively and had even worked for the U.S. Forest Service before my arrest and confinement. So I was at departure time both mentally and physically prepared and willing to face the Wilderness Experience.

The first day of travel to the beginning of the course went well. The second day of preparation and a strenuous hike to our first camp site was a shock as my body and mind were forced to use every bit of their ability and strength to take me to the first camp. I was tired to the bone and began to wonder if I really wanted to be where I was. I began to look at the experinece as some sort of "military training act". But I kept silent

about my feelings at the group meeting of my patrol. But the next day fed my negative impression as we rand down the mountain and down a valley road to some trees. There we were challenged to somehow get over a 6 foot "electric" fence without touching it and without leaving any body behind. After some effort we managed to build a platform and jump over the fence. But upon success our methods and group behavior were critized. Then we were sent on a mini solo where we each were given a place to stay and there I really began to think the whole exercise was ridiculous. I began to think that I wanted out, but still I remained silent on the issues that were biting at me.

After the mini solo and long march back up the mountain, I became determined to say something about what was bothering me. The opportunity arose at an evening group meeting. I told one instructor that I thought this whole process was like military training. His main comment on that feeling was that we should take the experience one day at a time. So I decided that is what I would do. Because the other alternative of letting my frustration with being there take command seemed to be negative so I went on with the one day at a time concept planted in my thoughts.

The next day was the assault on a 14,000 foot peak which proved to be very tough and made me put every effort I possessed into putting one foot in front of the other. When the assent was finally finished I felt good, but was appalled when the "leaders" and group started to leave after only staying about twenty minutes on the summit. I really got the idea then that the leaders

were more interested in the climbing than the good feeling I felt from being on top of a 14,000 ft. peak. I then decided that I wasn't an alpine athlete and I didn't care to be one. So again I was back to resenting the program and some of the leaders especially. The feeling was brought to a peak when the leaders and some of the group literally hopped and skipped down the mountain. I really felt alienated then and I was going to be very leary of anything the leaders told me. But I also realized that this program was going to be an endurance contest of sorts and I was becoming committed to enduring. Just to spite the "leaders" if for no other reason. I realized that the asthetic aspects of the wilderness were going to be ignored for the most part. So I set my mind to that reality.

I returned to camp tired and with the beginning of an impression that each day was being planned to be harder than the day before. I began to see a pattern that was emerging. We were being asked to accept more and more stress as the days progressed.

So at camp that night I decided that I would rise to the challenge no matter what happened. I usually was the leader type in high school and after, but I made it a point to compliment the group, and not dominate it. There was another leader type so I made a conscious decision not to be in competition with him. I would save all of my energy for the endurance aspect of the course.

The next day we retraced our first days trail with relative ease and a steady pace. We arrived at the vans and slowly, but surely reorganized ourselves for the final 14 days. Our packs must have weighed 60 pounds with the additional food and rock climbing gear. So without much ado we were told we would run five miles down the valley road. Then we would meet the van and camp for the night. I took this announcement with ease as it seemed almost like a joke. But off we went anyway. I felt like an Indian courier with an important message so I gave the running all my effort and concentration until I was struck with a side ache that took all the fun out of the running. So I slowed and nursed myself until I became the next to last runner. Then, I was walking after about three miles and that's how I came into camp.

My group camped up stream from the other group and some leaders invited us down for an after-supper talk, but I didn't feel like it; I wanted some time to myself. But I went anyway cause I didn't want to appear to be putting myself outside the group. The talk was productive in that we got to know each other a little better. Also it became very apparent that the leaders were going to confront you even though they weren't really qualified to do so. But then they were entitled to their opinions but I still didn't really have good feelings for the leaders as a group. Though I still felt there were possibilities for friendship or acceptance to develop.

I got a good sleep that night because morning meant the beginning of long cross country odessey that I figure was going to be hard if not impossible.

The morning came and after limbering up exercises our group assembled and we began the first day's march. I was chosen to lead the group, so I set a slow pace and I strained under the weight of my pack as we slowly wound up the canyon road. I stopped for water and rest about every half hour but this routine was soon discouraged by the leaders and by the other group passing us by. This passing brought up the issue of group competition. So after a short personal prayer, I decided I'd just go all out and forget about being comfortable or enjoying myself. I'd just make this trip into some sort of mountain athletic contest and do it to the best of my ability.

We passed the other group by noon and ate in an afternoon shower. Then we arrived at the beginning of a climb to a mountain saddle which I declined to lead. After three-fourths of the way up I fell behind but after a rest and the prompting of a leader, I reached the saddle. Then we decided, at the urging of a leader, to attack another saddle which we did and again fell behind but with determination and the urging of a leader I caught up and literally passed the group leader onto the saddle. So, I did what I thought I couldn't do!

We then descended the mountain and made camp just before it started to rain. It rained all night but I slept good as I was really exhausted.

The next day we left on our own with only a map to guide us. I was lost for a while and traversed some difficult terrain. Then we met the other group who was lost too. Then the leaders caught up and we discussed in the rain how to proceed. Then we decided ourselves how to go and we did. We finally found the trail we were looking for and followed it with some speed and then we ate and discussed our next trailess terrain. But I felt good because I had lead the group most of the afternoon without slowing down. We then ascended a big hill and found the trail again after using the map and terrain to show us the way.

We reached our night camp again just as the rain started coming down. The leaders found us and camped. We waited in vain for the other group to arrive. Morning came and one of our group ran off looking for cigarettes, so the leaders went into directions to find the other group and the missing member of my group.

By this time the group had found itself and everybody did something to contribute to making camp or cooking or washing dishes. We had also discovered our weakest member who had stolen some food that night and who had run off looking for cigarettes. We dealt with those transgressions by confronting the person and showing our displeasure and explaining to him why he should shape up.

After finding everybody and taking a swim and washing in the mountain streem, we hiked on down the trail to a lake where

we ate and decided to ascend with the leaders up into a mountain basin from which we would assault a rock peak (Vestal). This six mile ascent was a killer. I was sweating and dying for all at the same time. But I assumed a determined, make-it mind set and proceeded to climb even though I was hurting badly. After what seemed forever, we made the basin and set up camp. It was a relief to know that we would be camped here for three days at least. But the mountain peak we were asked to climb looked terrifying to me and my fear of rock climbing came to me and made me search for an excuse not to climb, but there wasn't an excuse to be found.

The next day we practiced climbing and I got somewhat used to the equipment and the feeling of climbing and rapelling.

The next morning before sunrise, the other group left to climb the peak and I felt ready to go myself. But I was ready to spend the day gathering wood and helping build a sweat lodge and we also did some meditating as a group. But the real event of the day was watching the other group ascend the peak, but just as it seemed they had succeeded, a huge avalanche cut loose and it was terrifying especially when it became apparent that someone had been caught in it. This really struck fear into me and gave the mountain an almost human quality of resistance to being conquered.

The accident sent one of the leaders to a nearby town for treatment and another person too who had accidentally stabbed

his leg.

The next morning before dawn, we were on our way to the mountain, but the weather was against us and we returned which I was glad to do because I was feeling unlucky about the climb.

We were put on our solos before noon and I was glad because I needed to be alone. I laid all afternoon in the sun watching the peak we would climb. I became closer to it that way and my fear subsided. Thinking over the journey and about the wilderness itself I came to a conclusion about the transitory nature of the universe and of life itself. I fit it into philosophy and wrote it in poetry, to remain at my ear when I needed that observation and conclusions. I had thought of life as progression before which in many ways had frustrated me. So transition was a new and possibly viable idea for me in my struggle to identify some order in the chaos of life.

On the second day of the solo two leaders approced me and told me their impressions of me which were true, but I was surprised at their bluntness and I was blunt in return. But the end product was a better understanding of the two leaders. But no real better understanding of myself.

That evening I returned to the main camp and we discussed our solos. This was a good experience because it brought us closer together.

Before sunrise, our group began its climb to the peak. We walked up about one-third of the peak then we climbed with ropes as we had learned. It was foot by foot and scary, but we all

managed to slowly move up the peak. Near the top we stopped using ropes and free climbed to the peak's summit. It was a very exhilarating experience to reach the tope safe and sound. We ate lunch and made our way down the other side of the summit, and eventually into camp. Success was a feeling shared by all that night.

The next day we began our final journey. We climbed a tough saddle and descended a huge rock slide and finally moved into the woods where we gradually moved down into the valley floor and found a trail. It was snowing now; we ate and moved down the trail at a rapid pace. We soon made the river. There we set up a marker for the leaders then we went on down the river up and down its bank, in sometimes treacherous ways. But our pace lightened now as our bodies had tuned themselves and our minds were conditioned to hard and dangerous manuevers. In fact, we caught up to the other group who had left the day before we left. So we were proud of ourselves and we made camp with the other group and exchanged stories and small talk, but all the time feeling superior.

The next morning the leaders found us camping as two groups so they sent the other group packing to do a canyon ascent that had never been done before by an organized group.

We left shortly and began our journey, too.

Water Tank Canyon was soon to prove itself as hard beyond hard, rough beyond rough. We had no trail and only the map to follow with few identifiable landmarks to keep us going in a

direction that would keep us from simply wandering along the side of the canyon. Beyond that, the terrain was steep and filled with obstacles like cliffs and loose ground. We ran out of water early on and decided to forego lunch so as not to aggravate our thirst. Both groups met and parted twice but as the going got harder and harder we met again and this time we moved on together. But then even that group broke into smaller groups; then our group was alone again with one member missing. We finally got above the main forested area but soon we were forced ever downward by cliffs. In the late afternoon, we got within sight of the end of the canyon. We decided to try once more to gain elevation but we got nowhere; so we started down into the head of the canyon where we found water and other people from the other group. After resting, our group decided to climb out of the head of the canyon to the saddle which we did after some dangerous and super tiring climbing. I was exhausted and gave every attention to moving forward to the saddle though the worst climbing was over.

We moved with a cheer over the saddle and on to Crater Lake, where we camped and fixed a feast of celebration though we were worried about the missing member and the other stragglers.

The next morning we waited for the rest of the people and lectured one of our group for stealing food again. We decided not to turn him but hoped we had influenced him with our talking.

We finally left Crater Lake and walked rather easily down from the mountains to the waiting van and the other members of our group.

I was of great cheer to arrive and to have finished this journey as I will always remember it as a journey because it was a physical journey and an emotional journey too. We celebrated with a feast of steak and ice cream, watermelon, and salad. Then we were debriefed and given leader opinion of ourselves and any change we appeared to make.

My main discovery was the concept of transition and the feeling that I had overcome significant physical limitation. I found that I had much more energy and willpower in reserve than I wanted to believe I had.

I returned to the Forensic Hospital with a new sense of energy and willingness to strive just for the sake of putting out vital energy, which means to push myself beyond myself defined limits.

It is not made clear by this paper how I went from observer to participant in the Wilderness Experience though I have tried to show that change and its dynamics. Really the change exists in the nontangible qualities involved in surviving in a wilderness setting like the need to watch and really feel each step as you ascend or descend from a mountain ridge. This self survival transcends into group survival when each man carries some of the parts of primitive camp.

Those examples are only a small part of the total experience of living and travelling as a group over difficult and foreign terrain. The small details become the larger whole and that transcends into and becomes a part of your functioning which makes you in time a participant in the Wilderness Experience.

IX CONCEPTUAL UNDERPINNINGS OF WILDERNESS THERAPY

As part of the evaluation of the Wilderness Experience Program I agreed to participate as an observer/instructor on two courses. This allowed a first hand look at the program and an experiential feel for its therapeutic process. I attended two adult courses - one in the Canyonlands of Utah and the second in the mountains of Colorado.

The Wilderness Experience Program bases much of its rationale and philosophy on the work of Dr. William Glasser (M.D.) who is the advocate of so-called "Reality Therapy". This section of the evaluation examines the concepts of reality therapy and how these concepts are applied to the therapeutic courses in the wilderness setting.

Reality Therapy

The major premise of reality therapy is that pathology results from either denying or ignoring reality. The obvious beauty of adventure based therapy is that it forces the individual to confront situations in the "real" world where consequences are immediate. This can be contrasted with the vicarious nature of traditional counseling in clinical settings. Most traditional therapies are primarily introspective and insight oriented. These "talking therapies" presuppose a verbal ability often absent in the offender population.

Whereas many psychologists use counseling to change attitudes in order to change behavior, reality therapy changes behavior in order to change attitudes.

There are aspects of behavior modification on the wilderness courses. But instead of authority figures being the sole reinforcers

of behavior, the environment assumes much of this role. For example, on the desert course a young man who had never listened to staff lectures about staying with the group, got lost in the desert when he wandered off. He spent the night in freezing temperatures without any food before we found him. He was not punished directly for his behavior. The punishment came, however, from the environment -- not by the authority figures. In the wilderness there are undeniable laws which one either conforms to or they suffer the consequences. If one neglects to put up a tarp and it rains - - one spends a miserable night.

The program assumes that behavior is chosen by the individual and is always potentially under their control. No matter what has happened in the past, one still has responsibility for their present behavior. This rejection of "determination" is particularly significant in treating delinquents whom society often excuses under the rationale that their ethnic background or socio-economic situation channeled them to failure. The Wilderness Experience Program, on the other hand, argues that all failure is a personal responsibility and that success is potentially open to all people.

Although the environment assumes the role of the negative reinforcer for irresponsible behavior, the instructors role is an active one. At the right moment, the instructor confronts the client with the irresponsibility of their behavior and leads them to some understanding of it.

For instance, we woke up on day 7 of the Canyonlands River Trip to a steady rain. Rather than keep to the regular time schedule the

participants stayed in their bags -- comatose. We started three hours late on the river to a predetermined campsite. Behind schedule, we arrived well after dark. The clients set up tents in the dark and had a poorly prepared meal. That night the instructors de-briefed the day and showed the group how their irresponsible behavior in the morning had lead to the unfortuitous circumstances that evening.

Criminal offenders are individuals who are no longer in control of certain aspects of their life. Their non-acceptable and irresponsible activities which led them into trouble can be seen as cries for some control to be placed on them. Traditional external controls have been inadequate in meeting these needs. The therapeutic treatment of the Wilderness Experience Program is aimed at youth realizing their own positive power and potential, being responsible and internalizing appropriate controls.

There are five key principles from reality therapy which form the basis for the therapeutic value of the wilderness experience:

1. Involvement
2. Focusing on Current Behavior
3. Planning Success Experiences
4. Commitment
5. Planning Responsible Behavior

Involvement

The key to involvement is breaking down the self-involvement in which delinquents dwell. This is done dramatically. First, the individual is jolted from the false securities of his familar environment

and placed in a new, unfamiliar one. Through placement in a contrasting environment the learner gains new perspective on old patterns and assumptions. The provocative challenges of the wilderness--the mountains, the rivers and the desert-- demand new behavioral responses.

Second, it is a group experience. Unlike most counseling in clinical settings the wilderness experience requires a cooperative framework - e.g. to set up tents, to cook food, do dishes, and so on. Facing the common objective of survival and on the relatively equal footing with one another given the novelty of the challenges, the group must utilize one another's attributes.

Sooner or later a system of exchange evolves whereby the individual strengths and weaknesses can be traded off within the group. One boy might be a good route finder, another an excellent cook while a third demonstrates a witty sense of humour under adverse conditions. There is a survival value in identifying the total strengths, weaknesses, and various skills of the group. Abilities can then be exchanged to a point where all the people contribute to the problem-solving pool of alternatives (Walsh & Golins p.6). Such a cooperative experience is almost impossible in society today.

The third way in which adventure therapy gets at involvement is through the use of controlled stress. Stress or anxiety is characteristic of dissonance in an individual. Anxiety is a natural response to the wilderness environment if one is unfamiliar with the skills necessary to confront the inherent dangers. However, movement through this state of dissonance results in growth and learning. It is character-

istic of the problems -- route finding, rock-climbing, rappelling, and solo -- that they represent a supportive environment for resolving anxiety through mastery. (Walsh and Golins p.10).

Involvement is the foundation of therapy. Through the use of contrasting environments, reciprocity or spirited cooperation, and mastery of anxiety in stressful situations the offender breaks out of his self-involvement. The role of the group is to provide enough support to encourage the individual to develop confidence to make new, deep, lasting involvements of their own. This is an advantage of group therapy over individual counseling. Collectively the group can provide greater support and need gratification than a single individual. Listening to and becoming involved with the concerns of others reduces self-involvement and liberates the individual to express his emotions openly.

Focus on Current Behavior

Whereas most forms of traditional therapy focus at length upon the past history of the individual, adventure therapy focuses on present behavior. Concentrating on the "What are you doing"? rather than the "Why"? of behavior is directed toward helping the delinquent gain conscious control of his behavior in order to maximize his sense of choices.

The high ambiquity of wilderness challenges provides something akin to a projective test. The situation is high in involvement and high in ambiquity and the way a person responds to this situation gives the counsellor clues to his internalized value system or in T.A. terminology, his life script. By observing the way a person approaches

a difficult route on a rock climb, one can often gain insight into the frame of reference from which a person responds to stimuli, approaches other challenges and makes decisions.

The wilderness helps the individual focus on current behavior in that the consequences of behavior are very practical, tangible, and immediate. The very nature of the activities forces the learner to evaluate himself continually. Self-responsibility becomes a necessity. The ramifications are immediate and understandable. The rules are not man-made If one breaks the rules the consequences are uncompromising. The wilderness offers an environment in which what is learned can be put to immediate practice and the learner can receive instant feedback. This is particularly effective in encouraging and supporting individuals who are looking to integrate new behavioral patterns and styles into their daily lives.

Planning Responsible Behavior

The wilderness experience is a carefully constructed, multi-faceted "shot-in-the-arm" designed to counteract patterns of failure. Activities are planned that provide stretching experiences. The difficulties become incrementally greater. Success is built upon success. On day one instruction is concerned with how to stuff a backpack and how to walk efficiently while advanced course work is of technical nature -- how to set up a rappel, travel on snow and ice, etc.

Because most of the challenges are clear-cut and well-defined, the problems posed have a beginning and a definitive ending. For instance, once you reach a rapid in a six man raft there is no mistaking

success and failure -- the basic dichotomy is apparent. This clarity of the consequences of one's actions, or non-actions, is often not so obvious in other aspects of life. This same clarity allows one to experience "success" with 100% pay-off--you did it-- in a few brief seconds the raft pops out of the rapid and the rapid left behind. The drive to competence is furthered by tangible success- - man enjoys seeing the clear cut results of his actions.

To John Dewey, learning is reflection upon meaningful experience. So it is that much of the therapeutic process of adventure therapy is in nightly "de-briefings" of the day or in softer terminology, reflection. The instructor/counsellor helps the individual to process the experience and to integrate it. In small ways the failure-oriented youth is a different person each time he emerges from a success experience. The goal of reflection is for each individual to perceive these small changes.

Commitment

The development of a mutual trust leads to commitment to the group and the activities. Trust is developed among group members through sharing, open communication and shared adventure. Masks and fronts can not be maintained over the intensity of 23 days in stressful and unfamiliar circumstances. Trust is developed in unique and dynamic ways. In rock climbing one is "belayed" by a peer. The "belayer" is charged with the responsibility of catching the fall of the climber. In this situation one is trusted with another's life. Belaying is a significant and provocative metaphor for most delinquent youth.

William James wrote of the need to find the "Moral Equivalent of War". What James was getting at is the need for society to evolve a situation whereby men develop the same degree of commitment to each other as developed by men serving in the war. The wilderness experience in adventure therapy seems to borrow upon this concept.

In society today commitment has taken on some perjorative overtones. Too often avoiding commitment is acutally merely dodging responsibility rather than the freedom people suppose. We abdicate our freedom by assuming that things will take care of themselves or that someone else will undertake the task. Avoiding burdens or tasks that should be a mutual concern is irresponsible. On wilderness courses such behavior is intolerable and is confronted.

During the wilderness experience it is a shock for individuals to find out that there are no buffers to shield them from the consequences of their own actions. An instructor will let a patrol walk for days in the wrong direction if they have been irresponsible in decision-making in finding the proper route. If the group decides to overindulge and eat a five day supply of rations in the first three days, then on day four the consequences are irreversable.

Commitment comes when people perceive themselves as independent actors capable of knowing and accepting responsibility for their action. Furthermore, non-action is avoidance of responsibility and is a "cop-out".

It is the responsibility of the instructor/counsellor of the group to assist the individual in developing realistic plans for change.

Towards the end of the experience discussion centers around transfer -- i.e., how to take the new learning and the incipient success identity and apply it to one's life after "reentry". The wilderness instructor facilitates this planning as the delinquent has had little successful experience in this regard. The instructor inquires that the contract is realistic.

Supplementary follow-up services must be provided to each individual. These services include vocational opportunities, home placement, counseling, etc. This is to insure that the success achievements once generated don't die due to frustration. The students must see the "program" as wholistic and not just the outdoor phase. The follow-up experience is an integral part. Currently follow-up is coordinated by the Forensic System. This network of psychological counseling services, which are community based, often bases follow-up on the recommendations of the wilderness experience staff. Regardless, there is potential for even more systematic follow-up. This point will be examined in the recommendation section to follow.

X RECOMMENDATIONS

1. The original funding for the Wilderness Experience Program came through federal funds from a LEAA Grant. Consequently, the terms of the grant specified that the program would be directed to the treatment of criminal offenders, both juvenile and adult. As the federal funding expires the State of New Mexico, should take the opportunity to expand the program's clientele to other special populations and programs. Programs might include alcohol treatment programs, drug rehabilitation programs, community counseling centers and the State Psychiatric Hospital. Special populations which the program could address include mentally retarded, physical handicapped and senior citizens. Research suggests that the wilderness experience is a viable therapeutic milieu. The potential connections to existing programs within the Mental Health Bureau are prolific and provocative. These courses would be modified and geared specifically to the needs of the population being treated.
2. The Wilderness Experience Program should vigorously pursue its function as a de-institutionalization and re-integration program. The 17 day course is an excellent metaphor as a rite of passage from institutional commitment to individual responsibility. The new parole board should be educated as to this service in order to maintain the incipient connection between the Wilderness Experience Program and the Penitentiary. A special course should be offered to staff and adjudicated

youth from Springer Boy's School in order to nurture this connection. The concept of re-integration could also be explored with other insitutions such as the State Psychiatric Hospital.

3. The Wilderness Experience Program would be more cost effective if it based future courses on projected referrals. The juvenile courses are consistently in higher demand than the adult courses. Consequently, more juvenile courses should be offered. Special courses and short courses could complement the ongoing delivery of services and consequently, increase cost effectiveness.

4. The Program should offer juvenile courses in the summer when it is easiest for youth to avoid the commitment of schooling. In the past, communication courses have received the full Wilderness Experience Program summer commitment. Juvenile courses and special courses should run concurrently with the communication courses.

5. Although the Forensic Treatment System offers follow-up to the Wilderness Experience graduates with vocational and psychological counseling, this aspect of the System needs to be honestly evaluated and studied. Ideas from other programs using wilderness adventure with juvenile offenders include such follow-up activities as interviews between graduates and D.A.'s, police officers and judges; some programs develop service projects where youth rebuild dilapidated houses or other "constructive" activities; some utilize

interesting connections - i.e., juvenile wilderness graduates planning and running a short weekend outdoor experience for a group of younger mentally retarded youth.

6. The State of New Mexico might consider the idea of developing an adventure group home. Colorado has just initiated such a program. The adventure group home idea incorporates a wilderness experience course as an initial experience which is followed with up to one year in a residential treatment program involving experiential education components.

7. The Wilderness Experience Program should coordinate research efforts and information sharing with Dartmouth Psychiatric Hospital in Hanover, New Hampshire and McClean Hospital in Boston, Massachusets where wilderness adventure approaches are being used in the treatment of special populations including: chronic schizophrenics, alcoholics, manically depressed individuals, etc.

8. The Wilderness Program and the Forensic System should begin a long term operational plan to provide a forward looking sense of direction. This would include a determination of research questions and future evaluation strategies. The introduction of the Data Management System into the Forensic System is a positive step in this direction.

APPENDIX A:

A CONCEPTUAL MODEL OF ADVENTURE EDUCATION WITH DELINQUENTS

HOW DELINQUENTS SUCCEED THROUGH ADVENTURE BASED EDUCATION

by **GERALD L. GOLINS**

Given the particular characteristics of delinquents, wilderness education offers a unique opportunity for holistic change.

Adventure based programs serving delinquent populations have proliferated in the last five years.[1] The model on which most of the programs are based is essentially the standard twenty-three day wilderness course pioneered by Outward Bound. The principal variations on the standard course have occurred on the front end in preparing students more thoroughly for the experience, on the length, on homogeneous grouping, and on the tail end in integrating the wilderness experience into the student's lives more thoroughly.

Across the board these programs seem to be successful. We see startling turn-arounds in goodwill and achievement orientation on the part of delinquents; in the long run we see lowered rates of recidivism, reduction in the rate and severity of subsequent offenses, etc.[2]

Certainly adventure based education is no panacea. No matter how numerous these programs are, they still serve a relatively small percentage of the delinquent population, and we have our "failures", in the format dropouts, participants who continue their criminal pursuits, etc. Still, the results on the whole are more than encouraging.

What is it about adventure based education that helps a delinquent youngster alter his behavior to more socially appropriate forms? My thesis is that there are mechanisms or properties connected with adventure based education which respect the learning needs of the delinquent and virtually seduce him into achievement almost in spite of himself. Before I identify and elaborate on the dynamics of change for a delinquent in an adventure based setting, a brief and general description of the characteristics of a delinquent as they pertain to the change process seems necessary.

I perceive three principal characteristics in delinquents.

First, there is an extreme unwillingness to assume responsibility for self and others along socially acceptable lines. The delinquent lives in an oceanic world where his wants and needs have few boundaries. He resists holding himself, or being held, accountable for fear of not being able to meet his needs. Not exercising responsibility, he has few functional values. At the heart of the matter is a failure of willpower and concurrent resentment for having to accept one's fate and earn one's keep. He takes his rage out on himself and unfortunately on others. In reference to Kohlberg's theory of moral developme[illegible]e delinquent tends to exist at a preconventional level [illegible]ere the self is satisfied selfishly.[3]

Second, the delinquent is a limited learner. His thinking process seems to be overly concrete for his age. In Piagetian terms, he is in a concrete operations stage of cognitive development.[4] He collects information without properly weighing it, consolidating it, or generalizing on it for utilization in subsequent experience. He needs concrete models.

Third, his affective posture is debilitating. He lacks confidence in himself and others. As a result, his motivation to learn is low and he is resistant to the idea that others, especially authority figures, can be of use to him.

The picture I have painted is bleak and extreme. There are obviously degrees. In fact, are we all not delinquent in some ways? Nonetheless, the delinquent is an extremist. His lack of responsibility and inability to learn carries him outside the law and into trouble.

Fortunately, there is in most delinquents a contrary desire to reconcile themselves to the demands and basic agreements of society and succeed within its appropriate conventions. This desire exists as potential energy to be

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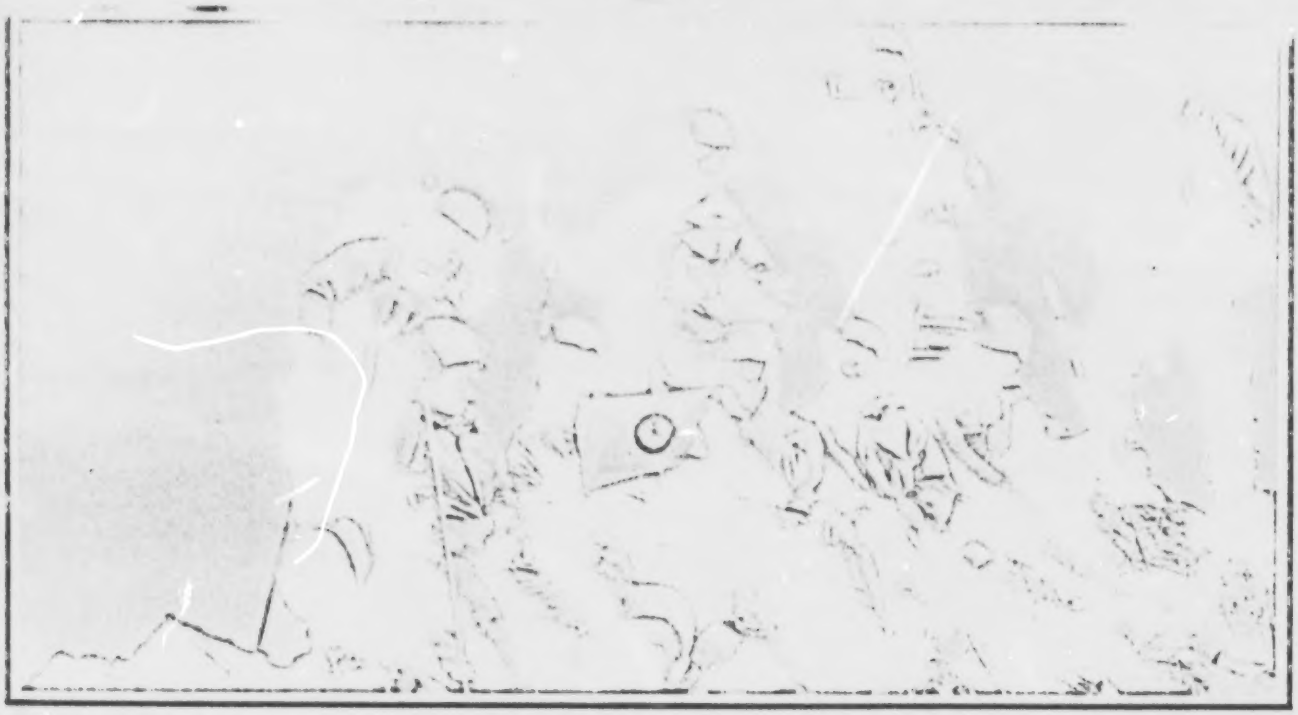
[1] "Working Our Way Home", *Corrections Magazine*, June 1978, PP. 33-47.

[2] The statement as to programming success is based on experience and the compilation of numerous evaluations.

[3] Paul Harmon and Gary A. Templin, *A Three-Dimensional Model of the Affective Change Process* (Denver, Colorado Outward Bound School's Clearinghouse, 1977), P. 13.

[4] *Ibid.*, P. 18.



tapped. The delinquent experiences the dilemma of being in the habit of acting out his anger at society (with its reciprocal agreements) while recognizing, on some murky level, that his only hope lies in joining it. Given an ego, he is looking for a way to join without losing too much face. Adventure based education becomes a ticket he can buy to integrate himself into society honorably.

The Change Process

I identify five significant properties in adventure based education which impel a delinquent to rearrange his destructive ways. They are: a gamelike atmosphere, the organization of participants into primary peer group, the use of the outdoors, the nature of the problems posed, and the style of instruction.

Gamelike Atmosphere

It is one thing to be expected to change oneself for ever and ever; it is another to be expected to behave differently for a consummately intense but relatively short time frame. The former is a heavy commitment; the latter is a different sort of commitment, it is almost a commitment to play acting.

Johan Huizinga in *Homo Luden* defines a game as a voluntary activity where participants are rewarded for the best representation of something. It is not ordinary or real life; it is by its very nature superfluous. It does not serve any practical end. It is limited in time and place, confined to ". . .forbidden spots, isolated, hedged round, hollowed, within which special rules obtain."[5] Because of the rules there is much order in games. All of this is not to imply that games are not taken seriously; on the contrary, they tend to be absorbing, engulfing, enlightening.

I contend that adventure based education as it is practiced à la Outward Bound is very much a game. And its gamelike atmosphere seduces a delinquent into trying on new responsible behavior for size. As such the education is less threatening, easier to participate in.

Adventure based education is a voluntary activity by invitation or initiation. The activity is hard enough to ensure that no one will be there who chooses not to be. It is not an ordinary reality. The order of the day is to take on the sacred, ennobled trappings of the explorer with his covenant of indiviudal excellence and brotherhood. And it is played out in contrasting, fantastic environments for a fixed amount of time (twenty-three days or so forth).

It is certainly easier for a delinquent to get into play acting responsibility and trust. In the process, he discovers that he can get his needs met, that being being responsible is not so impossible, not so frightening after all. He has learned a new game, a new repertoire of behavioral responses and inclinations. A new pattern of behavior has been imprinted.

I think the dynamic of the atmosphere of the game is a subtle yet compelling enticement to a delinquent; it stimulates his curiosity, his needs for competence. After all is it not easier to play the game of adventure based education, than the game of life? The former is an easier entry point. Such modelling develops its own habit strength.

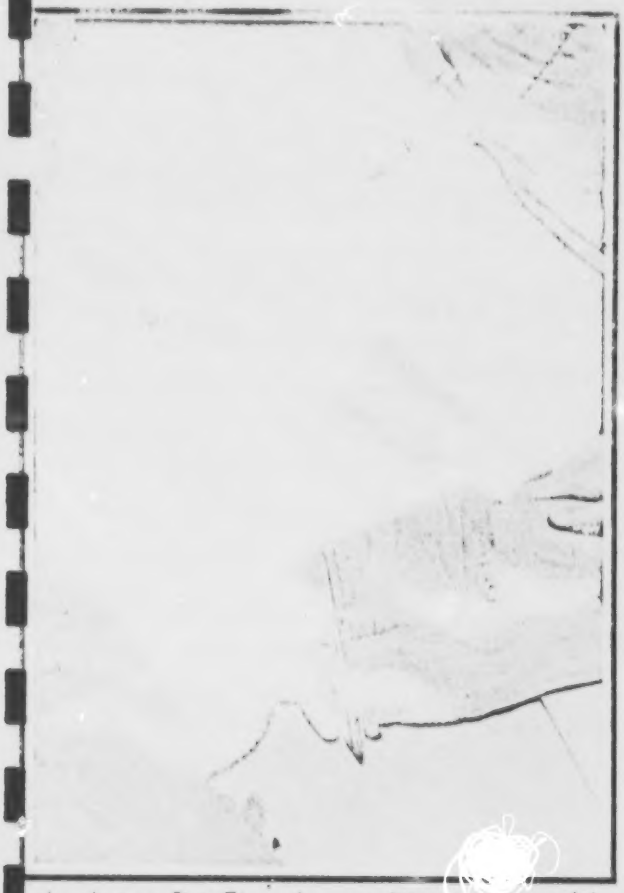
Organization of Participants into Primary Peer Group

The use of a primary peer group with delinquents is a master stroke. The use of a peer group fills a developmental need in their lives. Like any adolescent, they relate primarily through peers.[6] By organizing them into a learning unit, their needs to reciprocate with peers is respected. Contrast this stiuation with the traditional classroom where the individual stands alone.

In addition, the peer group is a primary one (from 5-15 people). As such it is a model structure to develop individual strength within a cooperative framework. It is large enough for conflict, yet small enough to reasonably re-

[5] Johan Huizinga, *HomoLudens: A Study of the Play Element in Culture*, (Boston, Beacon Press, 1950), P. 10.

[6] Dr. Derek Miller, "Psychotherapy with Adolescents" Seminar Presentation, William Beaumont Medical Center, March 25, 1976.



olve that conflict. Given the expeditionary nature of the course, with the small size of the group, there is a greater probability that individual strengths will be maximized and weaknesses minimized. In short, everyone counts, everyone is needed to share the burdens of getting through the experience in one piece. There is a common objective and a collective consciousness. In short, there exists the possibility of genuine community described by the theologian, Martin Buber:

> True community does not come into being because people have feelings for each other (though that is required, too), but rather on two accounts: All of them have to stand in a living reciprocal relationship to a single living center, and they have to stand in a living reciprocal relationship to one another.[7]

There exists a common bond. There are also vital inter- and intrapersonal relationships created around that bond. It has been argued that many teenage gangs operate on a reciprocal basis already. This may be true. But the context is different, and the ends in an adventure based setting are sanctioned by society. What they learn can be that their reciprocal needs with peers can be met within the rules of society. Their communal needs are capitalized on, and channeled into more productive ends. We see a principle of judo employed by the organization of participants into primary peer groups as we absorb the energy for peer grouping and capitalize on it.

Use of the Outdoors

The properties combined in adventure based education complement one another. The use of the outdoors is no exception.

The first quality of the outdoors that comes to mind is that it is evocative. It is unfamiliar and captivating. Man's survival instincts click into gear, the senses of the participants are alerted. As the delinquent is somewhat resistant to learning, his increased sensual receptivity increases his chances of processing his experience and learning from it. The use of the outdoors energizes his receptors.

The outdoors also presents itself in a very physical, straightforward way. There are mountains to climb, rivers to run, bogs to wade through. As an adolescent delinquent whose principal mode of expression is an action oriented one, and whose thinking process is mostly concrete, the possible activities in the outdoors fulfills his developmental capability. He just stands a better chance of excelling here.

Last, the symbolic potential of the outdoors is more readily accessible. Things and actions stand in bold relief. If we subscribe to the theory that "learning is thinking about the meaning of experience", i.e. picturing it or symbolizing it, then the outdoors is an easier environment for a delinquent to conceptualize in or generalize from. Such an environment would seem to facilitate the development of conceptual thought in a concrete oriented thinker.

To illustrate the potency of using the outdoors to develop meaning, take the existential notion that "everything and everybody is valuable". How could this imprint itself in an adventure based setting. Take the climbing rope.

> "For the student the rope is not simply a member of a class of objects, just one more thing in the world; it is irreplaceably and unspeakably valuable. Perhaps he doesn't even suspect its presence in the rope bag; perhaps it is taken so much for granted that it is noticed only on certain occasions when it seems to demand attention. Such attention will not be a detached contemplating, but a caring for the rope; it requires cleaning, it has to be coiled; or the nick in the sheath has to be patched cleanly. In such care the rope reveals itself to our experience. At the same time this care binds the student and the rope into a larger order which includes the cliffs and mountains, patrol and course, instructor and friends. Caught up in that order he knows his place and what is to be done. We might even say that for an instant he understands the meaning of 'life'. But what is that? What would he say? There is only a way of being, a way of responding to the call of the rope; it's more like a mood than anything else."[8]

Characteristic Nature of the Problems Posed

Adventure based education is a process in which students face problems which induce stress. But the problems are structured to result in a student successfully overcoming the stress and mastering the problems.

We emphasize the fear, stress, anxiety associated with adventure based education. What escapes our attention, however, is just how much support there is built into the problems which help insure that the student will accommodate to the challenge successfully.

[7] Martin Buber, *I and Thou*, (New York, Charles Schribner's Sons, 1970) P. 94.

[8] Don Peterson, unpublished, untitled paper on Outward Bound, Denver, Spring, 1978.

First, the problems are prescribed to arouse curiosity, to strengthen competence, to elicit cooperation. There is the intention to base the tasks on the learning needs and capabilities of the learner. Such structure is a necessary relief to a delinquent who by his very nature lives with little structure and has a difficult time managing himself. The game plan is laid out for him.

Second, the problems are introduced incrementally for the sake of continuity and consolidation. Basic skills to master the requisite outdoor environment are taught. Confidence is cultivated through the successful accumulation of skills. Such progressive achievement is necessary for the delinquent to ward off the high possibility of his succumbing to the stress. Taking things one step at a time also complements his cognitive development (which is concrete).

Third, the problems are concrete and manageable. Basically we all like to tackle problems that we can envision ourselves solving and are within our grasp. This is especially critical to the underachieving, concrete thinking delinquent.

Fourth, the problems are played out within a reciprocal framework. As mentioned earlier, there is the pressure and support of the peer group. In some respects, each individual is carried beyond his capability drawing on the compensating strengths of the other peers.

Fifth, the problems pose an immediate and impartial threat to life, limb and the fragile psyche. The resolution of adventure based problems have consequence. Man is at heart a survivor; and when his life is on the line, he marshals his resources to the best of his ability to survive.

And sixth, the problems posed are holistic and require a holistic resolution. He must enlist the head, heart and the hands in a complementary way. He is thinking and emoting in the problem and physically acting out his resolution to the problem in the here and now. He is engaged. He is bringing all his resources to bear simultaneously.

So the characteristics of the problem posed encourages mastery.* Contrast this with traditional education and therapy. They tend to be segmented in terms of the cognitive, affective, and physical domains. They tend to be weighted toward the accumulation of facts difficult to relate to. They tend to rely too heavily on verbal skills. They tend to be piecemeal, the consequences capricious and delayed.

Adventure based education impels a delinquent to embrace a new behavior style. When he is asked to discuss change (which also happens in an adventure based setting) he has at least experienced what it is he is being asked to change to, to own.

Style of Instruction

The style of instruction in an adventure based setting is of a very high quality. The result is mutual respect and understanding and volition on the student's part.

To begin with, the instructor accompanies the students throughout most of the course. He does everything along with the students. He trains them in the fundamentals

needed to survive the experience. He encourages or facilitates the demonstration of newly acquired skills and exhorts the students to capitalize on their strengths. He is with them for twenty-four hours a day, seven days a week. That multiplies out to more than one hundred fifty hours of attention. Since most programs last two weeks or more, we are talking about a significant amount of instructional time. Given the instructor's availability, there is a greater probability of "striking when the iron is hot" as the teachable moment presents itself. In short, the instructor can be readily perceived as an extra parental adult (second only to peers as important to an adolescent) whose authority is unquestionably based on commitment, care and competence. He is indeed useful. It is not that other adults working with delinquents in other settings are not committed, do not care, do not have things to offer. It is just that the traditional working environment is so much more limited.

Summary

I have painted an idealistic picture. The process of change in an adventure based setting is not guaranteed. It is problematic, labor intensive, the client recalcitrant. An inherently risky and limited client is being taken into an inherently risky experience. Even so, given a desire to change on the part of the participant, the principal properties of adventure based education, such as, the gamelike atmosphere, the use of primary peer group, the use of the outdoors, the nature of the problems posed, and the style of instruction increase the probability that the delinquent will rise to the occasion and master the challenges. He will obtain, through the process, associations of mastery which will surface in subsequent experience for him to validate. It may be the first time he has had associations of mastery to fall back on in directing subsequent experience.

* Much of what I have just described is handled more extensively in a paper entitled *The Exploration of the Outward Bound Process*, coauthored by Vic Walsh and myself which is available through the Colorado Outward Bound School's Publications Clearinghouse, 945 Pennsylvania, Denver, CO 80302.

APPENDIX B:

"THE WILDERNESS EXPERIENCE: THERAPY AND RITE OF PASSAGE"

By Dr. Susan Cave and
Dr. Elliot Rapoport

THE WILDERNESS EXPERIENCE:
THERAPY AND RITE OF PASSAGE

The Wilderness Experience is an innovative, experiential treatment program under New Mexico's Statewide Forensic Treatment System designed for mentally disordered first offenders and those soon to be released on parole or probation. Developed from the concepts of Outward Bound, criminal offenders undergo an intensive 17-21 day group and individual confrontation with their physical, emotional, and social boundaries through such high stress activities as back-packing, cooperative group living, rock climbing, white water river rafting, rappeling, canyon traversing, and wilderness survival solos. The target behavior of this program is a reduction of antisocial, acting out behaviors, and replacement with prosocial, non-criminal attitudes, and activities.

This is a global, long range objective and can be accomplished by working on the factors in the personality that produce, contribute, or fail to prevent criminal behavioral. Enabling objectives include reduction of alienation and estrangement from social groups, self-concept elevation, increase in coping skills and morale, integration of aggressive and sex role aspects of the personality, and reduction of distrust and deceit.

The dynamics of how such a therapy works to accomplish this change in the criminal offender has not been empirically studied (Glass, 1976). Preliminary data gathered on 30 clients (both inpatients and outpatients) indicate that in fact there are changes of major personality traits. The MMPI (Minnesota Multiphasic Personality Inventory) was administered pre- and post-experience

to all 30 patients. Four such courses have been run to date since December, 1976, and on future trips, additional tests will be given to all subjects. The MMPI yields measures on 13 different personality traits considered to be generally stable, particularly over such a short period of time.

METHOD

Subjects:

The participants were referred from a variety of agencies within the common denominator of the criminal justice system. Approximately one-third were in-patients from the Forensic Hospital and the others were out-patients referred by public defenders, district attorneys, probation and parole officers, and mental health professionals. The legal status ranged from pre-sentence evaluation, deferred sentence, probationers, parolees, and court ordered treatment cases. The age range for these males spanned 18 to 38 years and the ethnic distribution reflected that of the State of New Mexico. The types of criminal offenses varied across residential burglary, armed robbery, rape, first degree murder, and everything in between. The psychiatric diagnoses included sociopathy, drug and alcohol abuse, sexual deviation, schizophrenia, neurotic and other mixed personality disorders.

Apparatus:

Each participant was issued hiking boots, woolen clothing, long underwear, parka and rain gear, pack and frame, sleeping bag, ensolite pad, compass and whistle. For each group of three participants, a stove, two fuel tanks, cook kit, ropes, tarp, trenching tool, and food were issued to be used and carried cooperatively. Two first aid kits were shared by large walking groups. All prescription medications were carried and administered by staff on a PRN basis. Each participant signed a contract to ensure their understanding of staff expectations regarding their conduct (see attached copy).

Procedure:

Each client underwent extensive screening and interview by both clinical and wilderness staff guided by the selection criteria on page 86-A. During the first three days or "shakedown phase" clients were taught basic back-packing and wilderness survival skills, such as map reading, rappelling, rock climbing, food preparation, care of the feet, etc.. Six out of the 36 attempting this phase were selected out for either unforeseen physical limitations or violations of the contract, e.g., drinking alcohol. The middle 10 to 12 days were spent deep in the wilderness (floor of the Grand Canyon in Arizona, and the Gila and Pecos Wilderness areas of New Mexico) hiking from 8 to 15 miles a day over difficult terrain with 40 to 60 pound packs, often without visual contact with wilderness staff during extended hiking periods. Patients hiked in large groups of five to eight persons with the group selecting a new patient leader for that day who set the pace. Each group travelled together, took breaks together, ate together, moving only as fast as the slowest member. The person in the rear carried the first aid kit, a responsibility that also rotated daily. Each night there was a group meeting around the campfire with discussion and instruction regarding the day's events, aches and pains, and the upcoming day. The final three days included the 24 hour "solo" where the group dispersed to distant areas with only sleeping bag and minimal provisions. De-briefing and reentry were also dealt with in the final three days with each person working on their problems, goals, and new awarenesses as a result of their wilderness experience.

RESULTS AND DISCUSSION

Pre and post MMPI data were analyzed using the following seven clinical scales and one validity scale: K, depression (D, 2), psychopathic deviant (Pd, 4), masculine-feminine (MF, 5), paranoia (Pa, 6), psychasthenia (Pt, 7), schizophrenia (Sc, 8), and social inhibition (Si, 0). The other five scales

are theoretically stable, not likely to change and in fact did not change to any significant extent.

The most widespread change is in social inhibition where 87% of the clients describe themselves as being more secure and less easily threatened by social interaction. They see themselves as better able to make decisions without hesitation and as appropriately assertive. On the Si scale, 95.2% regressed toward the mean; in other words, people who were superficially gregarious became more genuine and self-disclosive and those who were socially inhibited and shy opened up and related to the group. In social situations they experience more confidence and poise with increased interpersonal contact. This is most likely the result of the total group, cooperative living experience, which would reduce the social alienation so prevalent in sociopaths and one of the dynamics operating in acting out and antisocial behavior.

The second most pervasive change is in the scale measuring dominance-submission and sexual role identity. The clients as a whole were able to integrate both the more aggressive "masculine" impulses with the more passive, nurturing aspects of their personality. Clients returned with much more outward pride but less arrogance and better skills for appropriately expressing feelings, especially aggression. On this particular scale, patients' scores show regression towards the mean: the more "macho" tough guys integrated the tender, passive side of themselves and the more passive, repressive patients integrated their aggressive "masculine" impulses. We believe this to be the result of role modeling from intense interaction with the Wilderness staff. Staff acts as therapeutic agents by being themselves, i.e., integrated adult male role models not fearful of their strength and aggression nor of their tender, sensitive emotional side (Bandura, 1971). Lack of integration of both sides of the personality is a contributing factor in the drug and alcohol abuse so prevalent in this population as well as in violent criminals and sex

offenders. Dr. James R. Kennedy, psychiatrist and former Clinical Director of the Forensic Hospital and participant in several Wilderness Experiences, describes the dynamics as "identification with the well integrated, strong but gentle, capable but not invincible, tough but sensitive leaders".

A frequent change amongst all the Wilderness participants (85.7%) was on a critical dimension of psychological well-being, what mental health professionals call "ego-strength", reality testing, self-esteem, and self-worth, as measured on the K scale. These changes represent improved coping skills for dealing with intrapsychic stress and the problems of daily living. The patients' reality testing was improved such that they saw themselves and other people with keener more integrated perceptions; they were better able to accept their own strengths and weaknesses as well as those of others. Morale and adaptive skills were strengthened so that patients now would be described by others as sociable, reasonable, enthusiastic, and resourceful rather than as demoralized, ineffectual, cynical, and dissatisfied. In other words, patients believe they can now cope with problems, no longer feeling overwhelmed and helpless to deal with life's vicissitudes and frustrations. In Dr. Kennedy's words, "the Wilderness Experience can stimulate mastery and facilitate maturation in those suffering developmental arrests, rather than defects. Their faulty mothering lacked gently graded frustrations in an encouraging atmosphere which stimulate efforts at effective action-on-the environment which, when successful, have a summation effect leading to mastery and self-esteem". Such changes are the ultimate goal of psychotherapy and represent a critical dimension of mental health in criminal offenders as well as any other patient population (Frank, 1976). The physical and emotional rigors of the Wilderness Experience can provide such tasks and the atmosphere for mastering physical and emotional dimensions. Many patients describe doing things in the Wilderness that were harder or more frightening than anything they had ever done before as well as

deriving the greatest satisfaction and gratification from ary previous life experience.

There were other changes as well among Wilderness participants although not as universal as those previously discussed. About half the patients reported greater awareness of anxiety and tension. The antisocial personality typically does not experience the nervousness or vague fearfulness that curbs antisocial behavior in most of us. Such internal tension is both a motivator for change and the trigger for internal controls and restraints. This result combines well with their improved coping skills because now they are no longer denying or minimizing such problems and they have discovered intestinal fortitude to realistically cope with them. Much of the de-briefing group work centered on realistic future planning and assessment of problems.

The majority of the patients also returned less paranoid, less suspicious, and more trusting of themselves and others. The cooperative living, hiking, and mountain climbing forces one to trust other literally with your life if they are on your safety rope as you go up or down the rock cliffs. Also, given that many of the clients felt depressed and worried over their legal status among other things, the ones depressed at the outset returned energized and motivated. Another critical difference in the Wilderness graduates was a drop in antisocial attitudes, such as less resentment towards authority figures, less rebelliousness, and consequently decreased likelihood of flagrantly and actively seeking out conflicts with the law. Because there are direct immediate, and inescapable consequences for almost every behavior, the rate of learning is very high in the Wilderness and punishments and outcomes are no longer vague and unconnected with causative behaviors.

Our experience is that there are three general types of criminal offenders for whom this treatment modality is most effective. The young adult first offender who has not known extended incarceration responds very well, particularly with out-patient counseling and probation supervision upon return to

the community. The Wilderness Experience has also worked effectively for the convicted felon over age 25 with a primary diagnosis of sociopathy, a history of incarceration followed with long term in-patient treatment, and a clearly demonstrated investment in personal change. Schizophrenic criminally acting out patients in stable remission also make therapeutic gain. Regardless of type of offender or diagnosis, we feel that the Wilderness Program is most effective when used as a "rite of passage" from either the jail or the hospital back into society. For institutionalized patients, the Wilderness trip also acts as a consolidator for past milieu group and individual therapy experiences. In a sense the Wilderness Experience is a high stress proving ground for the more abstract therapeutic insights.

The results presented in this paper are preliminary, in that they are not as yet compared with control data. However, such further studies based on this highly promising pilot data are already being conducted. A second area in which these results are preliminary is in the area of long term follow-up, both in terms of stability of profile changes and criminal recidivism. At this time, however, we can report that no successful Wilderness graduate has been re-convicted on a new charge. Additional future research will include long term profile stability follow-up work as well as empirical evaluation of the theoretical analysis presented in this paper.

In summary, preliminary data presented in this paper show clear evidence of dramatic MMPI profile changes on scales thought to be relatively stable, particularly over the short pre and post test interval used in this study. Furthermore, these changes are virtually universal amongst participants and appear solely due to the intervening Wilderness Experience. The most significant declines in the D, Pd, Pa, and Sc scales and a general elevation of K scores. Both terms of pre-test scores and a theoretical analysis of their import, these changes are seen as highly desirable, and represent a viable and clearly beneficial treatment modality.

TABLE NO. 1

Percentage of participants showing regression towards the mean (T Score = 50) on selected MMPI clinical scales. (Mixed Diagnoses) N = 30.

K	D	Pd	Mf	Pa	Pt	Sc	Si
85.7	85.7	85.7	90.4	100	100	85.7	95.2

Average magnitude of change on selected MMPI Clinical Scales in terms of number of T Scores. (Mixed Diagnoses) N = 30.

K	D	Pd	Mf*	Pa	Pt*	Sc	Si*
UP 5.4	DOWN 7.95	DOWN 5.09	DOWN 3.09	DOWN 8.14	DOWN 7.43	DOWN 10.62	DOWN 5.09

*The results on these scales are artificially low as some participants showed increases in scores from very low upward toward the mean.

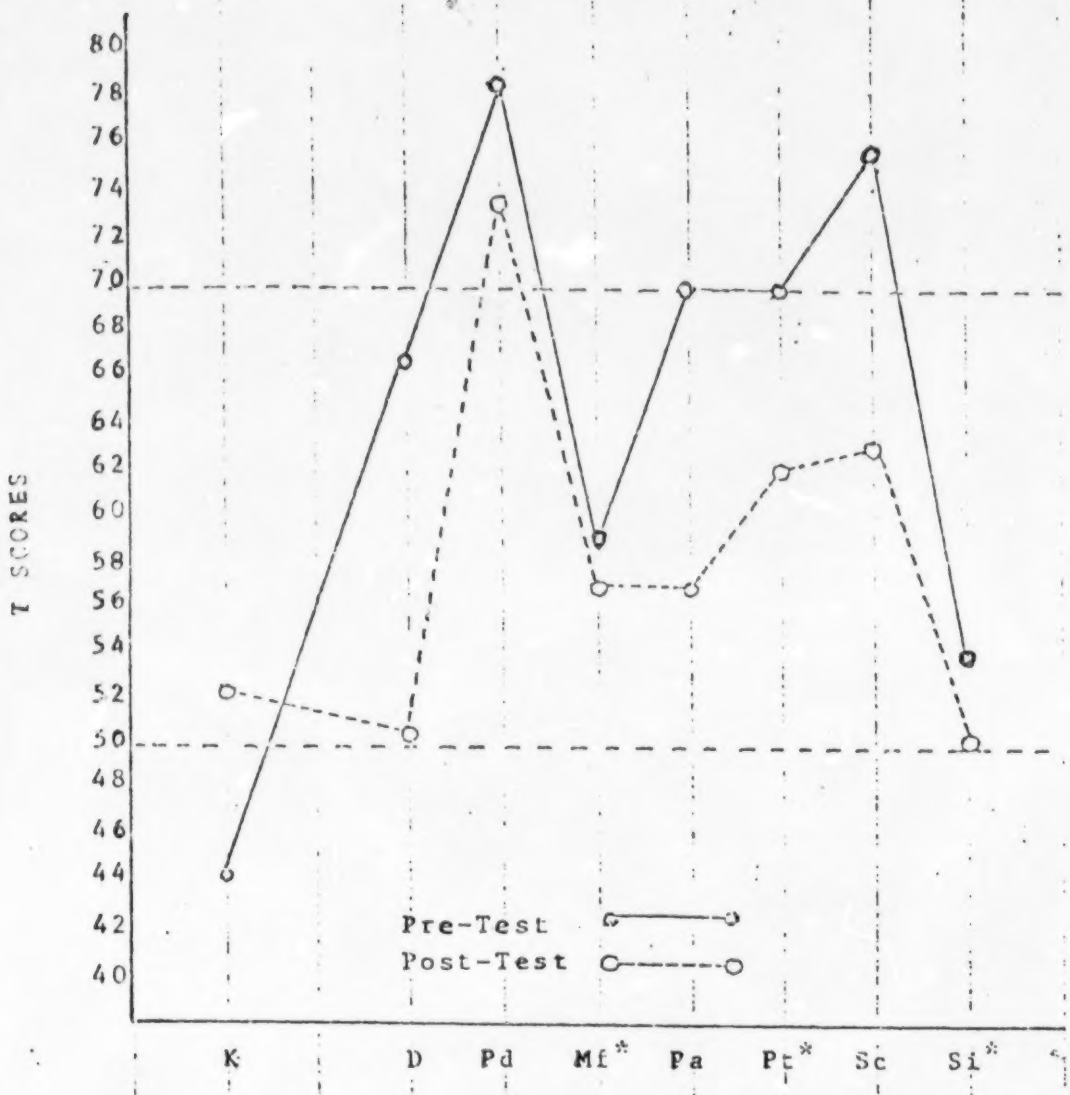


Fig. 1. Pre and Post Test T Scores on eight selected MMPI scales for antisocial personality disordered patients.
N = 6

*The pre and post differences on these scales are artificially low, as successful treatment could be represented by increases or decreases.

SELECTION CRITERIA FOR THE WILDERNESS EXPERIENCE

Medical Criteria:

1. Candidate has no need of constant medical supervision of a chronic illness, e.g., chronic heart disease.
2. Candidate is not obese.
3. Candidate has no serious allergies especially asthma.
4. Candidate has not been detoxified from alcohol or drugs recently (within four months).
5. Candidate has no significant history of back trouble or trouble in the lower extremities.

Behavioral Criteria:

1. Candidate is not currently psychotic, significantly retarded, or suffering from debilitating organic brain dysfunction.
2. Candidate is not predisposed to violence as a dominant means of adaptation (except in-patients with extensive long-term treatment).
3. Candidate does not require constant supervision as a walkaway risk or disoriented person.
4. Candidate has a readiness to cooperate/benefit from treatment.
5. Candidate has adequate impulse control.
6. Candidate has adequate problem-solving ability.
7. Candidate has the capacity to foresee (predict) consequences of behavior.

Legal Criteria:

1. Candidate has been given a deferred sentence.
2. Candidate has been given a deferred prosecution.
3. Candidate has been given a parole.
4. Candidate has been given a probation.
5. Candidate has been court ordered for treatment for trial competency or extended evaluation with recommendations to the court.

Demographic:

1. Candidate is at least 18 years of age.

APPENDIX C:

VARIABLES SIGNIFICANTLY RELATED TO POST-PROGRAM RECIDIVISM

CLIENT VARIABLES SIGNIFICANTLY RELATED TO POST PROGRAM RECIDIVISM*

(Reported by Willman and Chun, Massachusetts Homeward Bound Program)

Chronological Age (Age at Participation)
Aggressiveness Level
Last School Grade Attended
Marital Status of Parents

*Statistics not provided

CLIENT VARIABLES SIGNIFICANTLY RELATED TO POST PROGRAM RECIDIVISM

(Reported by Kelly and Baer, 1971)

	T-Test	Significance Level
Age at First Commitment	5.20	$P < .001$
Age at First Court Appearance	3.88	$P. < .01$
Presence of both parents	(Reported as significant, but statistic itself not presented)	

CLIENT VARIABLES SIGNIFICANTLY RELATED TO

POST PROGRAM RECIDIVISM

(Drum and Max, Michigan Expenditions, 1978)

VARIABLE	FOLLOW-UP INTERVAL	SIGNIFICANCE LEVEL
Sex N=273	Three Months (following program completion)	$P < .001$. df=1
Sex N=132	Twelve Months (following program completion)	$P < .05$, df=1
Aggressiveness Level N=132	Twelve Months (following program completion)	$P < .05$, df=2
Age at Program Entry N=272	Three Months (following program completion)	$P < .05$, df=3

BIBLIOGRAPHY

Berecochea, John E., Dorothy R. Jaman, and Welton A. Jones. "Time Served in Prison and Parole Outcome: An Experimental Study", Research Division, Department of Corrections, State of California, Research Report No. 49, October, 1973.

Cardwell, G.R. "Research and the Fallacy of Recidivism in Studies on Wilderness Programs for Troubled Youth", Ontario Ministry of Community and Social Services, September, 1978.

Cave, Susan and Rapoport, Elliot. "Wilderness Experience: Therapy and Rite of Passage", a paper presented at Rusk State Hospital, National Forensics Psychologist's Conference, 1977.

Corsini, Raymond. Current Psychotherapies, Itasca, Illinois, 1973, p. 287 - p. 317.

Drum, Terry L. and Max, Laurence J. "Michigan Expeditions Evaluation 1975-1978", Michigan Department of Social Services. October, 1978.

Gazda, George M. Basic Approaches to Group Psychotherapy and Group Counseling, Springfield, Illinois, 1975, p. 196 - p. 234.

Godfrey, Robert. "A Review of Research and Evaluation Literature on Outward Bound and Related Educational Programs", published by Colorado Outward Bound School, 1974.

Golins, Gerald. "How Delinquents Succeed Through Adventure Based Education" Journal of Experiential Education, Winter, 1978, pp. 26-29.

Holt, Norman. "Rational Risk Taking: Some Alternatives to Traditional Correctional Programs" in Gene Glass Editor Evaluation Studies Review, 1976., pp. 658-672.

Jerome, Joe. "Michigan Expeditions: 2nd Quarterly Report" available through the State of Michigan, Office of Criminal Justice Programs, December, 1975.

Kelly, Francis J. "Outward Bound and Delinquency: A Ten Year Experience", a paper presented at the Conference on Experiential Education, Estes Park, Colorado, October, 1974.

Kelly, Francis. "Physical Challenge as a Treatment for Delinquency", Crime and Punishment, October, 1971, p. 437- p. 445.

Medrick, Frederick W., "Confronting Passive Behavior Through Outdoor Experience" printed by the Rocky Mountain Center for Experiential Learning, Denver, Colorado, January, 1976.

Nold, Joseph J. "Wilderness Adventure Training as an Alternative to Incarceration", paper available through the Colorado Outward Bound School, Denver, Colorado, July, 1974.

Shore, Arnold. Outward Bound: A Reference Volume, Outward Bound Inc., New York, New York, 1977.

Smith, Mary Lee. "Evaluation of the Effects of Outward Bound" in Gene Glass, editor, Evaluation Studies Review, 1976, pp.400-418.

Smith, Mary Lee. "Final Report; Experimental Study of the Effects of Outward Bound", Bureau of Educational Field Services, School of Education, University of Colorado, 1976, Boulder, Colorado.

"The Role of the Wilderness Experience in the Treatment of the Youthful Offender: A Conference Report", Touch of Nature Enviromental Center, Southern Illinois University at Carbondale, March 4-6, 1978.

Walsh, Victor and Gerald Golins. "Exploration of the Outward Bound Process", reprinted by Colorado Outward Bound School, Denver, Colorado, 1976.

Weider, Richard. "Review of the Corrections Project", Colorado Outward Bound School, December, 1976.

Willman, Herb C., Jr. and Roy Y.F. Chun. "Homeward Bound: An Alternative to the Institutionalization of Adjudicated Juvenile Offenders", Federeral Probation, (September, 1973).